People & the Planet

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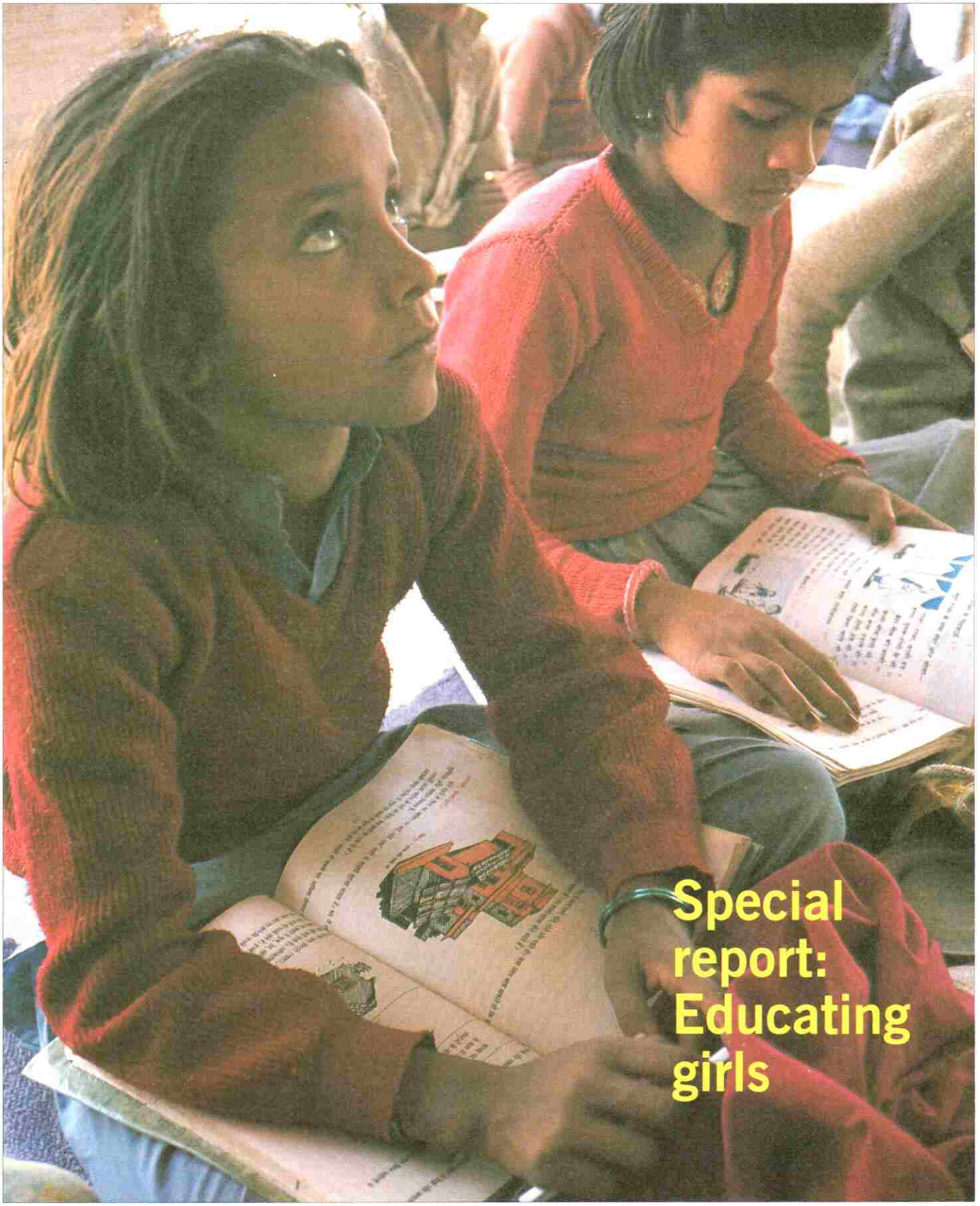

Special report: Educating girls

Partners for change

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Cover: *A woman teacher from the local community has drawn these girls to a desert school in Rajasthan, northern India. Story on page 18. Picture by Sanjeev Saith.*

■ *The next issue of* **People & the Planet** *looks at the growing pressure on the world's water, with first-hand reports on new approaches to the problem*

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Editor: John Rowley
Associate Editor: Jeremy Hamand
Administrative Assistant: Janet Abbott

Contributing Editors: Paul Harrison. Don Hinrichsen, Norman Myers

Correspondents: Stewart Fraser (Australia), Gamini Seneviratne (Austria), Shahadat Chowdhury (Bangladesh), Sarita Kendall (Colombia, Ecuador), Wagdi Riad (Egypt), Ajoa Yeboah-Afari (Ghana), Susan Mulley (Hong Kong), Bishakha Datta (India), Margot Cohen (Indonesia), David Nowlan (Ireland), Sujaya Misra (Kenya), Aliou Diongue (Mali), Anne Reid (Mexico), Elizabeth Obadina (Nigeria), Saneeya Hussain and Javed Malik (Pakistan), Paul Icamina (Philippines), Helena Marques (Portugal), Mallika Wanigasundara (Sri Lanka), Yuli Ismartono (Thailand), Nuray Fincancioglu (Turkey).

Design: Zoë Davenport

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People & the Planet

Liberation and change

Every document on world development, from the Pearson Report of 1969 to the Brandt Report of 1987 and last year's Agenda 21, has urged the case for universal literacy, and an end to the disparity in the education of girls as against boys. The World Declaration on Education for All, adopted at a UN conference in Thailand in 1990, widened the vision to incorporate more than formal education, with learning opportunities for everyone. This was seen as a central element in any programme of sustainable development built upon health, the wise use of science and technology, care for the environment and social wellbeing.

In reality, while there has been a massive extension of primary education, over 100 million children never enter a classroom. And the prospect of universal schooling will remain a distant prospect for many developing countries outside of East Asia and much of Latin America and the Caribbean, unless education – and the education of girls in particular – is given a much higher priority. According to the 1990 Human Development Report, if the present slow rates of improvement persist, it will take another hundred years for women to catch up with men in terms of simple literacy in countries such as India and Bangladesh. In parts of Asia and most of sub Saharan Africa, demographic pressures and cutbacks in social spending alongside 'structural adjustment' programmes are outpacing the growth in school enrolments. To enrol every child in Nigeria in primary school, for example, would require another 20 million places, an increase of over 120 per cent.

But as educational opportunities do improve, it is the persistently poor participation of girls in many societies which is of special concern, and the focus of this issue of *People & the Planet*. Women make up two-thirds of the one billion illiterate adults in the world, and they do much worse than boys in terms of secondary and higher education. Female enrolment at secondary level is only 14 per cent in Africa and 26 per cent in Asia. The cost of this, in sheer economic terms, is only now being fully understood. The World Bank is specially to be congratulated for researching the investment value of educating girls and making the results known (see page 10). But the value of such investment is far more than economic, as our reporting in this issue shows. The girls in drought-prone Rajasthan, going to school for the first time; the science students in Jordan expressing a determination to fulfil their own destinies; the mothers in Morocco learning to read the Qur'an for themselves; the women in Nigeria, putting their newly-acquired literacy to economic effect. These are all part of the new human energy waiting to be liberated. It would be wrong to assume that educating girls will solve all the planet's problems, including those of population and a healthy environment, without complementary policies and programmes. But as a recent report from Action Aid on the education of women said: "It is not only a means of liberation, but an essential instrument for social change".

John Rowley

NEWS FILE

Ozone fix

At a critical meeting in Copenhagen on how to save what remains of the earth's ozone layer – the chemical shield that protects all life on earth from the sun's harmful ultraviolet radiation – 93 countries took three big decisions, *reports Don Hinrichsen:* they agreed to set up a fund for poor countries, enabling them to comply with the terms of the 1987 Montreal Protocol; the timetable for phasing out CFCs was tightened by five years, from 2000 to 1995; and two new substances were added to the list of restricted chemicals, including methyl bromide, a chemical used in pesticides.

The meeting, held in November 1992, came on the heels of fresh scientific evidence that the ozone 'hole' over the poles was increasing in size. With each new revelation about the continued thinning of the ozone shield comes dire predictions of increased risk for skin cancers, cataracts and, more ominously, damage to plants (particularly reindeer moss) and photoplankton.

Instead of waiting for more evidence, the community of nations is acting decisively to counter this menace.

Migration lessons

Economists at the World Resources Institute (WRI) in Washington, DC, have revealed how macroeconomic policies adopted in response to the debt crisis, ill-judged land-tenure policies, and burgeoning populations have worked together to intensify human misery and environmental stress in the Philippines and Costa Rica. Their study uses internal migration patterns to explain the links between economic crises and ecological problems:

- In both countries, the economic slump precipitated by the debt crisis pushed tens of millions of unemployed workers and their families into frontier areas – in sharp contrast to the rural-to-urban migration patterns of the 1960s and 1970s.
- Population density and natural resource degradation cannot be correlated in any fixed way since other factors intervene: although population density is much lower in Costa Rica than in the Philippines, for instance, Costa Rican soils have been badly damaged as a result of policies that encouraged the widespread conversion of forest into cattle pasture.
- Treating population, economic, and resource policies as isolated entities conceals their interlocking impacts. Land-tenure policies *are* population and resource policies when they invite large-scale migration into frontier areas. Similarly, the failure to check rapid population growth and relieve poverty essentially becomes a natural resource policy with disturbing long-term consequences.

Migrant family in northern Costa Rica.

STEVEN RUBIN

■ *This report, entitled Population Growth, Poverty, and Environmental Stress: Frontier Migration in the Philippines and Costa Rica, suggests lessons that other countries can learn. It can be purchased from WRI, 1709 New York Avenue, NW, Washington, DC 20006 (telephone: 202-638-6300).*

Iran revives family planning

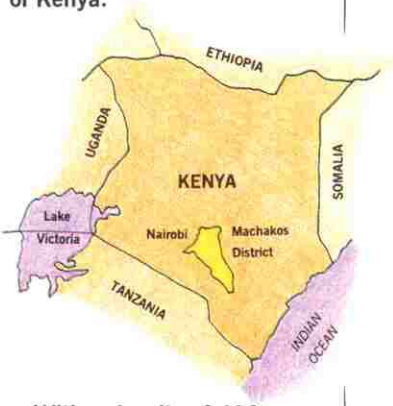
The Government of Iran allocated the equivalent of US$150 million for population activities in 1992, evidence of its determination to revive the family planning programme suspended in 1978.

The Deputy Minister of Health, Dr M R Zali, confirmed the government's intention to address the problem of rapid population growth when he addressed a WHO workshop in Isfahan in September. He has since indicated his desire to collaborate with IPPF and to make way for the establishment of a new Family Planning Association to provide non-governmental support to the programme. Iranian representatives attended the IPPF 40th Anniversary Congress in New Delhi in November.

Family planning was pioneered in Iran by a Family Planning Association established in 1967. Although it ceased to function in 1978, the Government has not opposed birth control. The population grew at the rate of 3.9 per cent in the decade 1976-1986 but has since declined to an estimated 2.7 per cent in 1992, when contraceptive prevalence was expected to be about 41 per cent of the population.

Population pressure and recovery

Population growth can be compatible with environmental recovery, suggests a case study carried out in the Machakos District of Kenya.



With a density of 400 people per km^2 and a population growth rate that reached 3.7 per cent and remains as high as 3 per cent, the Akamba people, spreading out from their traditional lands, have met the growth in human numbers with new farming and marketing practices. They have opened

up new farmland, capitalized on older farms and diversified their sources of income into non-farm sectors.

The natural vegetation and wildlife have been reduced but the predicted environmental and economic disasters have not occurred. The acute land degradation which occurred before 1950 at lower population densities has been reversed by human endeavour and by investment and employment diversification stimulated by the market.

Although the area is still vulnerable to famine caused by an erratic climate, most of the former "badlands", previously forbidden for settlement, are now cultivated and bench-terraced fields. The fuel crisis expected to result from clearing new lands has not occurred.

Mary Tiffen and Michael Mortimore, authors of a case study published in the Overseas Development Institute's *Development Policy Review* (Vol.10, No.4), conclude that the enabling technologies responsible for this outcome are soil and water conservation, innovative production techniques and institutional changes in leadership (including a more prominent role for women), education, land tenure and extension services. Sensible government policies, while not the only ingredient, are important.

Contact ODI, Regent's College, Regent's Park, London NW1 4NS, UK.

Election cheer

The results of the November presidential and congressional elections in the United States are good news for family planning programmes, *Sharon Camp reports.* Throughout the campaign candidate Bill Clinton expressed an unequivocal commitment to reproductive rights – a factor which helped win him a larger share of women's votes. Population aid supporters also look for active support from Vice President Al Gore. The Senate's leading environmentalist in recent years, Gore has a deep personal interest in world population problems. (See page 32).

US family planning advocates that were elected after the inauguration for the new administration moved quickly to modify most controversial Reagan and Bush administration family planning policies. Many can be reversed "with the stroke of a pen". This was true of the Mexico City policy, which made foreign organizations with any abortion activities ineligible for US family planning support. The reversal of the policy opens the way for a US contribution this year to IPPF, probably at a level close to the $12 million provided in the 1980s. US support to individual family planning associations and to the Western Hemisphere Region, totalling some $27 million in 1992, is also expected to continue.

The United States will almost certainly also resume its contributions to the United Nations Population Fund, which peaked at $38 million in 1984. No contribution has been made since 1985, nominally because of the Fund's programme in China. There should be adequate money to refund both IPPF and the UN Population Fund, since Congress appropriated an additional $100 million for 1993, but much of the increase has already been allocated to bilateral programmes, including major increases in contraceptive purchases. Given the continued level of controversy about China in Congress, and the ability of opponents in the Senate to stall policy changes, it may take some time to get US contributions up to a level commensurate with the Japanese contribution of $42 million.

On the whole, US family planning advocates are optimistic about the new Congress, and estimate they picked up 20 House seats, creating comfortable margins in both houses on most issues. There are probably still not enough votes, however, to overturn old prohibitions from the 1970s on the use of US foreign aid funds for most abortion-related activities, and perhaps not enough to guarantee unrestricted abortion rights for all American women.

Potential of the poor

John Madeley reports:

The increased work load of rural women "has tended to raise the desired family size", with women often dependent on the labour of their children, says a powerful new report The State of World Rural Poverty. But the "economic rationale changes", it points out, "when children start consuming more than they produce".

Published for the Rome-based International Fund for Agricultural Development (IFAD), the UN Agency which helps resource-poor farmers and landless people, the report contains probably the most detailed analysis ever published of what causes rural poverty and how it can be overcome.

"Demographic processes are linked with socio-economic development and poverty in a complex manner", say the report's authors. Rapid population growth has "frequently caused and perpetuated rural poverty through increased pressure on land and other resources". In large families the "flow of wealth" is from children to parents, but once this is reversed, "total fertility starts to decline".

"The poor are poor not because of their individual characteristics but because they confront major obstacles to improving their condition", says IFAD's President, Mr Idriss Jazairy. Promised land reforms are often not carried out, resource-poor farmers are overtaxed, and, in the case of women, there is systematic discrimination. The rural poor need to be seen not primarily as consumers, but as producers.

If the potential of the poor can be unleashed, argues the report, the "vicious circle" of poverty can be turned into a "virtuous circle" of poverty reduction.

■ *The State of World Rural Poverty: An enquiry into Its Causes and Consequences. I Jazairy, M. Almagir, T. Panuccio, IFAD/IT Publications, 515 pages, $14.95 paperback, $35.00 hardback.*

ASSOCIATED PRESS

Letter: World Bank Challenge

Sir, I congratulate Winthrop Carty on his article, "World Bank Challenge," *(People & the Planet* (1,4). He captured in very few words some of the central dilemmas faced by the Bank in trying to become an effective donor in the population field and the challenged faced by my successor, Thomas Merrick as senior population adviser.

However, it is not accurate to say that my population strategy paper was "rejected" and that I left the Bank as a result. While the paper was controversial, it was, in fact, finally widely accepted by Bank management. However, the departure of the Bank's President, Barber Conable, to whom the paper was directly addressed, and the major reshuffling of top managers that accompanied the arrival of his successor, Lewis Preston, resulted in the paper effectively falling through the cracks. This was exacerbated by my simultaneous departure, which meant there was no full-time senior advocate of the paper within the institution. It was my decision to leave and a major change in Bank leadership, rather than any overt institutional decision on the paper, that let the air out of the initiative.

Stephen W. Sinding
Director Population Sciences, Rockefeller Foundation

PETER CHARLESWORTH

Meeting the need

Uneducated women tend to be less productive, and employed in less well-paid jobs, than educated women. They are less able to protect their environment and keep their children healthy. They marry younger and are less likely to use family planning. There are an estimated 600 million illiterate women in the world - outnumbering men by nearly two to one. *Debbie Taylor* **introduces our 20-page special report.**

To an uneducated woman, a newspaper is only useful for wrapping things and helping start a fire. She can't understand the instructions on a seed packet, or a tin of milk powder. She can't make a shopping list, open a bank account or write a letter. Going into town can be a nightmare: she can't read road-signs or the destinations of buses; she keeps wondering if the shopkeepers are cheating her.

Experiences like this sap her confidence, so that she daren't argue when her husband bullies her, and avoids situations that might expose her ignorance. She tries to be a good mother to her children, but she finds it difficult to follow health workers' advice because it often seems to involve numbers.

Reasons like this are why uneducated women tend to be less productive, and employed in less well-paid jobs, than educated women; why they are less able to use their initiative to protect their environment. It is also why they marry younger and are less likely to use family planning; why they feed and teach and care for their many children less effectively than educated women (see Box on page 9). There are an estimated 600 million illiterate women in the world. They outnumber illiterate men by nearly two to one.

Awareness of the benefits of educating women is not new. Evidence of the importance of sending girls to school has been mounting for decades. What has changed in the last few years is the world's commitment to closing the gender gap – the predominance of boys over girls – that exists at every level of the education system in the developing world.

Around 75 per cent of countries now operate some kind of compulsory education policy and latest figures indicate that around 65 per cent of girls and 78 per cent of boys in the developing world enter primary school – that is 20 and 11 per cent more than a decade earlier. Secondary-school enrolments are lower – with only 37 per cent of girls and 48 per cent of boys in school – but this still represents an increase of 26 and 16 per cent respectively when compared with 10 years previously. Considering the rapid increases in the population of school-age children that has occurred over the same period, this is a tremendous achievement.

Despite this, the UN's Statistical Office has estimated that a further 56 million girls would have to be enrolled in school simply to achieve parity with the boys. And the majority of these new places would have to be created in Africa and Asia, in some of the poorest countries in the world.

The struggle of education services to stay ahead of population growth became more difficult in the last decade. With the advent of the economic recession, many poor or heavily-indebted countries have been forced to cut social spending. And, though the proportion of children in school has continued to increase, the additional numbers enrolled are down by half compared with the previous decade. In Africa primary school enrolment actually fell – from 80 per cent of eligible children in 1980 to 76 per cent in 1986. "Education in Africa is in a shocking state of deterioration," wrote Dr Anyang' Nyong'o of the African Academy of Sciences in 1991. "Rapid population growth and fiscal crises have resulted in a demographic crush on available resources and a dramatic erosion of quality."

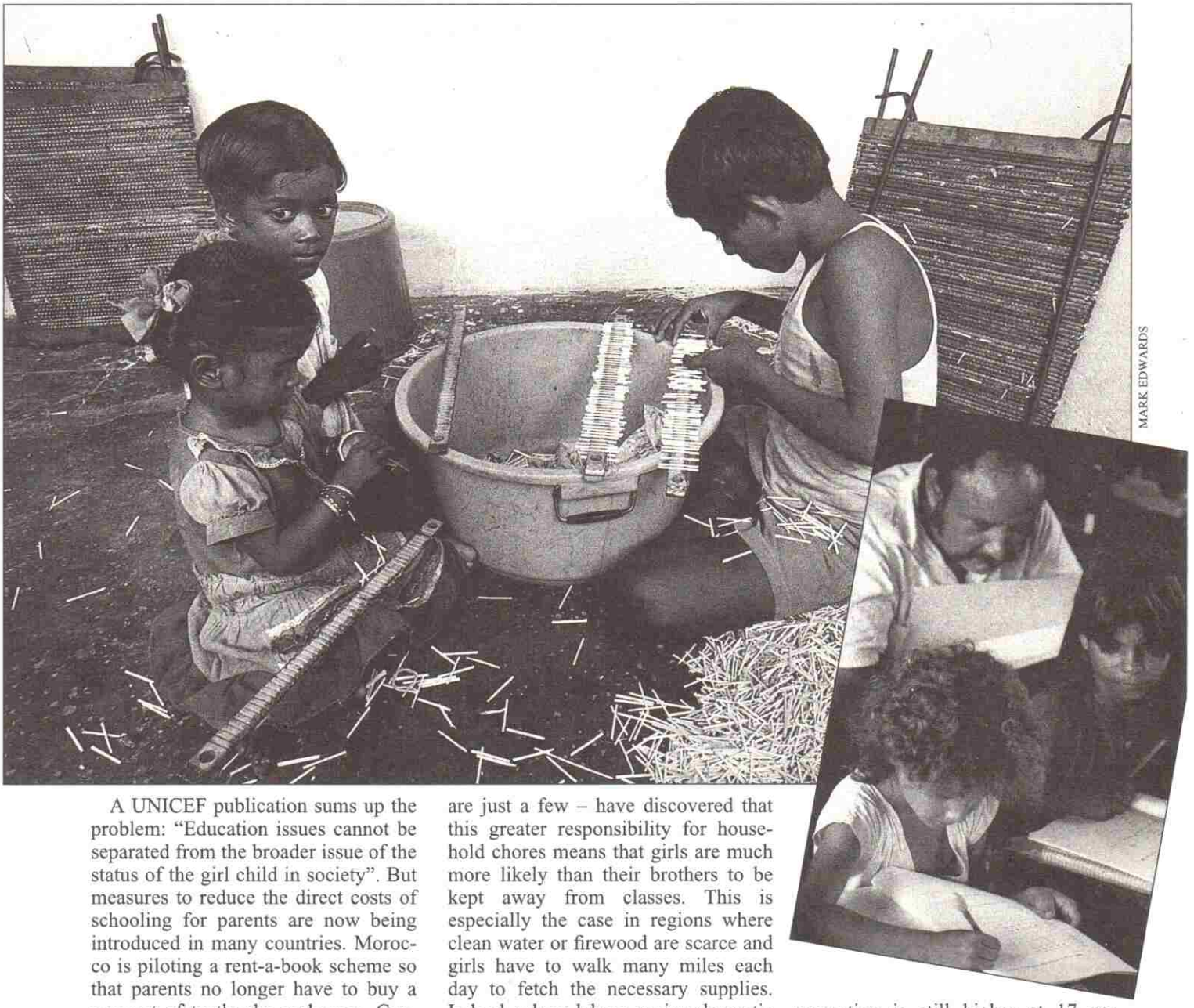
Many countries have faced the challenge with ingenuity, stretching what resources they have to accommodate the growing numbers of children. Schools in Bangladesh, Liberia, Morocco and Tanzania open their doors before dawn and don't close them again until well after dark. These so-called "double-shift" schools educate one entire intake of children in the morning, then start the school day again in the afternoon, with another full intake of children. Often the evenings are occupied too, with vocational training for teenagers and literacy classes for adults – and children – who missed out on their education the first time around.

Elsewhere, a motley collection of irregularly-shaped buildings have begun to appear in villages and shanty-towns all over the world as communities construct their own schools in various "buildings-for-teachers" exchange agreements with their Ministries of Education.

Building more schools is an obvious necessary first step for increasing children's enrolment. But in many countries it has not proved a sufficient condition for abolishing the gender gap. In Egypt, for instance, where an additional 400 primary schools were opened between 1981 and 1987, boys' enrolment rose from 94 to 100 per cent, but girls' take-up of places only increased to 74 per cent.

So why are there fewer girls than boys in school? One reason is cost. In Nigeria, for instance, primary school enrolment fell from 92 to 75 per cent between 1982 and 1986 when fees were introduced. Even in countries where education is nominally free, parents are normally expected to pay for their children's books, stationery and uniforms. In Kenya the cost of these items can be as much as 2,000 Kenyan shillings (US $70) a year. The result, in a poor family, is that parents have to choose which children to send to school. And because girls are less likely than boys to get a well-paid job when they leave school, and far more likely to marry and move away from home anyway, they are usually the ones that miss out on their schooling.

Primary school girl from the Hmong hill tribe in Vietnam.



MARK EDWARDS

A UNICEF publication sums up the problem: "Education issues cannot be separated from the broader issue of the status of the girl child in society". But measures to reduce the direct costs of schooling for parents are now being introduced in many countries. Morocco is piloting a rent-a-book scheme so that parents no longer have to buy a new set of textbooks each year. Canteens are being built and free school meals served as an added incentive to parents to send their children to school. In Colombia, where enrolment of boys is already fairly high, this last measure led to a significant increase in the numbers of girls enrolled in school. Scholarships are also being introduced for poor children in many countries, and "non-formal" community schools in the slums of Kenya are experimenting with a pay-as-you-go fee structure to make budgeting easier for poor families.

If cost is one impediment to increasing girl's enrolment in school, opportunity cost is another. Time use studies in Tanzania, Bangladesh, Java and Nepal have revealed that little girls do as much as six hours work each day in and around the home; and researchers in many countries – Yemen, Nepal, India and Indonesia are just a few – have discovered that this greater responsibility for household chores means that girls are much more likely than their brothers to be kept away from classes. This is especially the case in regions where clean water or firewood are scarce and girls have to walk many miles each day to fetch the necessary supplies. Indeed, where labour-saving domestic technology and measures to conserve forest resources were introduced in one region of Nepal, the enrolment of girls in school increased markedly.

These are long-term solutions, however. A more immediate measure is simply to reorganize school timetables so that classes no longer clash with household chores or crucial times of the agricultural year. Rescheduling schemes have been tried in Colombia, China and India, and the number of girls who drop out – because they have missed too many lessons to catch up – has been reduced significantly.

But domestic chores are not the only kind of work keeping children out of school. In many countries girls – and boys – are actually working to earn their keep by the time they are 10 years old. In Asia, for instance, child labourers comprise around 11 per cent of the total labour force. In Africa the proportion is still higher at 17 per cent. The most common employment for school-age girls in most countries is domestic service. One study in the urban areas of Colombia discovered that 40 per cent of 11- and 12-year-old child labourers were girls working as servants.

Outlawing child labour and making schooling compulsory has gone some way towards reducing this phenomenon in some countries. But the vast majority of child labourers are working because their families are in desperate need of the money and can't afford to wait until their children have graduated from school.

Time-tabling of classes can help here too – by allowing working children to attend school in the evenings. Late classes in India and Kenya are full of teenage girls who do a full day's work, then squeeze behind children's desks to catch up on their

Left: *Indian children filling match frames before dipping them. In Asia, children make up 11 per cent of the labour force.*

Below: *Children of rubber tappers in Brazil, at the school founded by Chico Mendes.*

schoolwork. In Colombia and El Salvador the curriculum has been remodelled completely to allow girls to drop in and out of education – as opposed to dropping out forever as they were forced to do previously.

But in many countries it is not so much a lack of resources – of classrooms, canteens, teachers – that is the problem, but the lack of the right kind of resources. In some Muslim societies, for instance, fathers would no more dream of sending their daughters to be taught by a male teacher than they would of allowing their wives to be examined by a male doctor. And, though teaching has become a feminized occupation in many regions – largely because it allows women to combine motherhood with work – there are many countries where teaching posts are almost universally occupied by men. In Nepal and Yemen, for example, women are only 10 per cent of the primary school teachers. In fact, research in one region of the Yemen found that girls enrolment dropped suddenly to nearly zero after Grade III, because there were no women teachers at the higher levels. But when one woman was recruited in one school, all the girls who had been kept away two years previously re-enrolled and went on to complete their education. In Tanzania, too, there was an influx of girls following the recruitment of more women teachers. And in Bangladesh, where until recently only eight per cent of primary-school teachers were women, positive discrimination has been introduced to ensure that at least 60 per cent of all new teacher trainees are women.

Sometimes what might seem to be a trivial issue can make all the difference to whether parents send their daughters to school. Research in Bangladesh, Morocco and Pakistan discovered that the lack of latrines was keeping thousands of girls away because their parents did not like the thought of their daughters relieving themselves in the open – an inhibition they did not feel about their sons. Yet a recent survey in Bangladesh revealed that 71 per cent of rural schools are without latrines.

Distance can be a factor too. In Egypt, 94 per cent of boys and 72 per cent of girls were enrolled in primary schools located less than a kilometre from their homes, but when the schools were more distant, girls' (but not boys') enrolment dropped to just 64 per cent because parents would not permit their daughters to travel any further from their homes. This reluctance is an important reason why many girls are kept away from secondary schools in particular – because these tend to be larger, fewer and further apart than the little local primary schools. Some countries – Bhutan and Morocco, for instance – have begun to tackle this problem by building dormitories for girls, with female wardens to reassure parents of their daughters' moral and physical safety.

Clearly education cannot operate in a vacuum. In societies where a girl's "respectability" has a greater value than her autonomy, schools tend to produce literate housewives rather than articulate, innovative citizens. Things are changing, though. "We are new to this," says Dr Sawsan Mahasneh, the Assistant Professor of nursing at Amman University in Jordan. "It will be different for our daughters." ■

The education effect

It has often been said that educating women is the single most important step governments can take to improve the health of their citizens and their economies. This is because:

■ educated women are more productive

Literacy and numeracy among women is associated with the adoption of improved farming methods, Data from 70 developing countries suggest that increasing girls' secondary schooling from 4 to 16 per cent would increase women's participation in the labour force by over 12 per cent. In Morocco, an additional year of education is associated with a 15.8 per cent increase in women's earnings.

In Thailand, an additional year of women's schooling is associated with a 26 per cent increase in their hourly wages.

■ educated women are more confident

Studies from Nepal, Nigeria and India found literate women expected and received better treatment at clinics and hospitals.

Research in Nigeria, Bangladesh and Mexico found educated women communicate more with their husbands and have a greater say in family decisions than uneduated women. Research from Uganda showed that educated women expect to be less dependent on their children in old age.

■ educated women marry later

The World Fertility Survey found that women with over 7 years of schooling married around 4 years later than uneducated women. Data from 77 developing countries found later marriage was associated with enhanced access to resources. Information from 21 developing countries found later marriage was linked to women's greater economic independence.

■ educated women use family planning

Uneducated women in Brazil have three times as many children as women who have graduated from secondary school. The increase in education of women in four Latin American countries is estimated to be responsible for 40-60 per cent of the fertility decline in those countries.

It has been estimated that giving 1,000 girls an extra one year of education would avert up to 500 births.

■ educated women have healthier children

Data from 33 less-developed countries reveals that every additional year of mothers' schooling is associated with an additional 7-9 per cent drop in child mortality.

The children of educated women in Sri Lanka, Colombia, Mali, Senegal and Liberia have fewer episodes of diarrhoea than those of uneducated women.

A study of four Latin American countries found educated women are more likely to attend antenatal clinics, have their births supervised by a trained person, and take their babies to the clinic to be immunized. ■

The most influential investment

Educating girls quite possibly yields a higher rate of return than any other investment available in the developing world. Women's education may be unusual territory for economists, but enhancing women's contribution to development is actually as much an economic as a social issue. And economics, with its emphasis on incentives, provides guideposts that point to an explanation for why so many girls are deprived of an education.

Parents in low-income countries fail to invest in their daughters because they do not expect them to make an economic contribution to the family: girls grow up only to marry into somebody else's family and bear children. Girls are thus less valuable than boys and are kept at home to do chores while their brothers are sent to school – the prophecy becomes self-fulfilling, trapping women in a vicious cycle of neglect.

An educated mother, on the other hand, has greater earning abilities outside the home and faces an entirely different set of choices. She is likely to have fewer, healthier children and can insist on the development of all her children, ensuring that her daughters are given a fair chance. The education of her daughters then makes it much more likely that the next generation of girls, as well as of boys, will be educated and healthy. The vicious cycle is thus transformed into a virtuous circle.

Few will dispute that educating women has great social benefits. But it has enormous economic advantages as well. Most obviously, there is the direct effect of education on the wages of female workers. Wages rise by 10 to 20 per cent for each additional year of schooling. Returns of this magnitude are impressive by the standard of other available investments, but they are just the beginning. Educating women also has an impressive impact on health practices, including family planning.

Let us look at some numbers in one country as an illustration of the savings from improved hygiene and birth control in Pakistan, educating an extra 1,000 girls an additional year would have cost approximately $40,000 in 1990. Each year of schooling is estimated to reduce mortality of children younger than five years by up to 10 per cent. Since an average woman in Pakistan has 6.6 children, it follows that providing 1,000 women with an extra year of schooling would prevent roughly 60 infant deaths. Saving 60 lives with health care interventions would cost an estimated $48,000.

Educated woman also choose to have fewer children. Econometric studies find that an extra year of schooling reduces female fertility by approximately 10 per cent. Thus, a $40,000 investment in educating 1,000 women in Pakistan would avert 660 births. A typical family planning evaluation concludes that costs run approximately $65 for each birth averted, or $43,000 for 660 births.

These estimates are of course crude. On one hand I have failed to discount benefits to reflect the fact that female education operates with a lag. On the other, I have neglected the add-on gains as healthier, better educated mothers have not only healthier, better educated children, but healthier, better educated grandchildren.

Even with these caveats, the social improvements brought about by educating women are more than sufficient to cover its costs. Given that education also yields higher wages, it seems reasonable to conclude that the return on getting more girls into school is over 20 per cent, and probably much greater. In fact, it may well be the single most influential investment that can be made in the developing world.

So what can we do to promote investment in the education of girls? Scholarship funds should be established and more free books and other supplies given to girls. Providing schooling that responds to cultural and practical concerns is also essential: female enrolment depends heavily on schools being nearby, on the provision of appropriate sanitation facilities and on the hiring of female teachers.

Raising the primary school enrolment of girls to equal that of boys in the world's low-income countries would involve educating an extra 25 million girls every year at a total cost of approximately $938 million. Equalizing secondary school enrolment would mean educating an additional 21 million girls at a total cost of $1.4 billion. Eliminating educational discrimination in the low-income countries would thus cost a total of $2.4 billion. This sum represents less than one quarter of 1 per cent of the gross domestic product of the low-income countries, less than 1 per cent of their investment in new capital goods and less than 10 per cent of their defence spending.

When compared with investments outside the social sector, education looks even more attractive. Take power generation as an example. Projections suggest that developing countries will spend approximately $1 trillion on power plants over the next 10 years. Because of poor maintenance and pricing problems, many of these nations use less than 50 per cent of the capability of existing power plants. In a sample of 57 developing countries, the overall return on power-plant physical assets averaged less than 4 per cent over the past three years and less than 6 per cent over the past decade – returns that cannot even compare with those of 20 per cent or more from providing education for females.

No doubt developing countries will improve their efficiency in generating power. And I have probably understated somewhat the difficulty of raising enrolment rates by neglecting capital costs and not taking explicit account of the special costs incurred in targeting girls. Nevertheless, it is hard to believe that building 19 out of every 20 planned power plants and using the savings to finance equal educational opportunity for girls would not be desirable. ■

Lawrence Summers wrote this article when he was Chief Economist at the World Bank.

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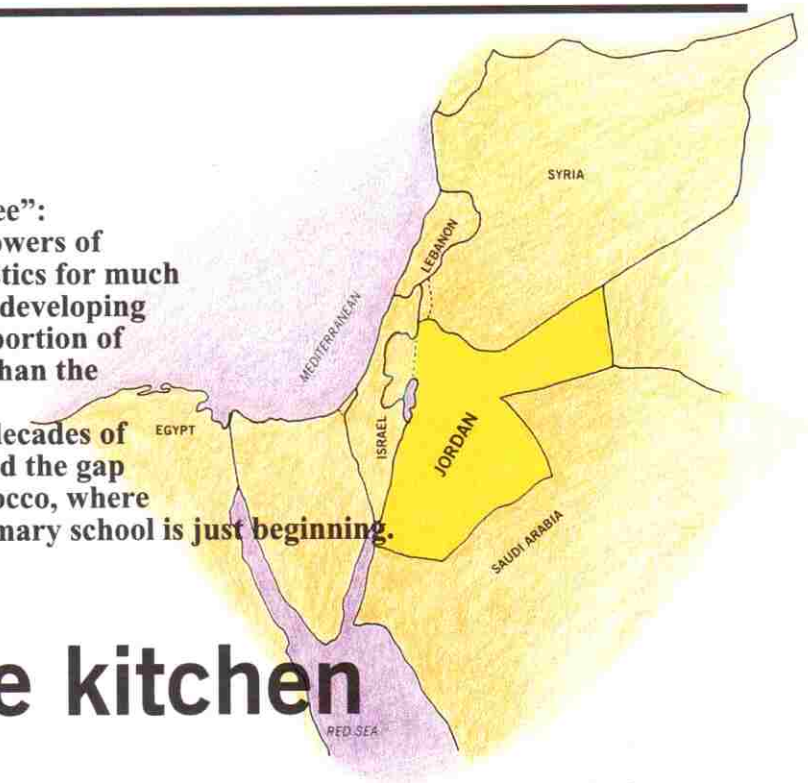


"Read: in the name of the Lord who createth thee": the first line of the Qur'an assumes that the followers of Mohammed are literate. But adult literacy statistics for much of the Arab World lag far behind those of other developing countries with comparable wealth. And the proportion of women who are unable to write is much larger than the proportion of illiterate men.
Debbie Taylor **travelled to Jordan, where three decades of free and compulsory schooling have finally closed the gap between girls' and boys' education; and to Morocco, where a campaign aimed at enrolling more girls in primary school is just beginning.**

Graduates in the kitchen

Jordan in winter is the colour of dust. The hills are nibbled clean of vegetation; geometric plantations of grey olive trees hug the sandy soil to stop the wind blowing it away. Cars, windows, even people's shoes, are dulled by layers of soft opaque beige. Fields of polythene greenhouses testify to the country's efforts to make this desert bloom, but the dust-coloured high-rises of downtown Amman indicate where the nation's real wealth lies.

"It has become the country's long-standing policy to rely on human capital due to lack of natural resources," declares the Ministry of Education's annual report. In other words: Jordanian citizens are their country's main source of wealth and investing in their education is a major priority. The report goes on to stress the importance of "promoting a new emphasis on technology" and "upgrading Jordan's human resources base into an increasingly knowledge-intensive, skill-adaptable workforce, capable of responding flexibly to changing societal needs".

The message is clear: Jordan is aiming for a Japanese-style economic miracle and hopes to use education to achieve it. In this it is already far in advance of the other countries in the Arab World. Over 90 per cent of eligible children are now enrolled in the compulsory 10-year basic education cycle which takes them up to the age of 15, and around 60 per cent go on for a further two years of either vocational training or specialized preparation for university.

More impressive still – and unique for a Muslim country – is the complete erosion of the gender gap at both of these levels of education. Indeed, from the ages of six to 16, there are now actually slightly more girls than boys at school – though young men still predominate in the university system.

Schoolgirl in Jordan. More girls than boys are now in school.

"It has happened in just one generation," said Hilwa Malhas of the General Federation of Jordanian Women. "When I was a child, only 20 girls went to secondary school each year. There were 20 cities in the country and the school just selected one girl from each city."

But if Jordan's educational miracle is supposed to engender an economic miracle, it seems that the latter will have to take place without the women. Because, though the majority of Jordanian women are literate, they still comprise only 14 per cent of the labour force. True, this figure is likely to be somewhat of an underestimate – women working on family farms and in domestic service tend to be missed out of labour-force calculations – but it still indicates the extent to which women have failed to take their place in the modern economic sectors of the new Jordan.

The relative paucity of women with jobs is not the only mystery. In every other country with comparable levels of women's education, fertility rates have fairly plummeted. In Chile, for instance, and Singapore, where three-quarters of girls are in secondary school, women have only 2.7 and 1.8 children respectively. Not so in Jordan.

Though the average number of children each Jordanian woman bears did drop from 7.7 in 1971/75 to 5.6 in 1987/90, this is still a great deal higher than one would expect. And though around 58 per cent of Jordanian women have used some kind of family planning, they tend to use it for spacing their pregnancies rather than reducing the sizes of their families. The much-vaunted "education effect" described elsewhere in this magazine

PICTURES BY DEBBIE TAYLOR

Below: *The older generation often missed out on education. This woman provides for herself from her work as a cleaner and as a traditional birth attendant.*

just does not seem to work as strongly in Jordan.

One clue as to why traditional roles are slow to change came from Buthaina Jardaneh of the Business and Professional Women's Club. "Our religion says 'the man is the bread-winner', she said. "That's one reason why women take their jobs less seriously. But if women want to work, or if they have to – because their husbands are badly-paid, or unemployed, or if they're divorced – then it's very difficult for them."

She explained that, until recently, certain professions – such as nursing, air-hostessing and hotel work – were considered "unrespectable", because they involved close contact with men. Others, with long working hours or shifts entailing travel after dark, are similarly problematic for a decent woman. "And, of course, there are always the children to think of," she spread her hands expressively. This was why women comprised two-thirds of the teaching workforce: because this was one of the few jobs that allowed women to combine working with motherhood. "You know, there was a law passed recently which obliges businesses employing over 30 women to provide creche facilities," she said. "So suddenly we have all

Desert Cinderella

FRERE WRIGHT

"This is my diary," said sixteen year-old Nawal. "I write here the things that have happened to me." There were a few pages covered in the delicate embroidery of Arabic script, then page after page of emptiness, with just a few sparse entries. "My sister got married here," she said, indicating one closely-written section near the beginning, "and this is when my father took me out of school. Nothing really happens now. I have to stay at home every day, cleaning and cooking for my father and his new wife, and my step-brothers. When my sister was at home we shared the work, but now she's gone, they shout for me all the time."

She took out another book and opened it. "These are my poems," she said shyly. "Since my sister left there is no-one to talk to, so I use this book to express how I feel. My father won't allow me to have visitors and he beats me if I go any further than the village shop.

"You know, I was very clever at school. I had lots of friends and my teachers encouraged me. They said they would try to find a sponsor to pay for me to sit the graduation exams. But my father just refused to allow it. Maybe it's because he didn't go to school. Maybe he doesn't want an educated daughter.

"Look, I have drawn a moon here and an eye with tears coming out of it. At night I sit and look up at the moon and cry. Sometimes I dream that a beautiful young man will marry me and take me away from here. Sometimes I dream I'm a bird and I can fly wherever I want. But I know it's just a dream." ■

Girls in the 'commercial' training class all plan to leave work when they marry.

these companies with just 29 women on their staff!"

To find out how young people themselves feel about their future, I went to school.

"I want to be a secretary when I leave school," said 16-year-old Bushra. "Then I'll get married when I'm about 24." She was sitting behind an adding-machine in a classroom decked out as an office as part of the school's 'commercial' training option. "Then my husband will want me to stop work to look after the children." "And then?" I asked. She looked puzzled for a moment, as though she had never thought that far into the future before. "I suppose when the children leave home, I will look after my grandchildren," she said vaguely.

"What about the rest of you?" I turned to the other girls who had been listening to our conversation. "Will you all stop work when you get married?" They nodded their pristine white-scarfed heads: they all intended to go out to work for a few years, then settle down to look after their families. Three or four children was a good sized family, they agreed: they couldn't bear the idea of ending up like their mothers. "When you have eight or 10 children, your life is very hard," said Bushra.

"Three can be hard work too," I pointed out. "Yes, I know," she rolled her eyes. "It's such a responsibility. These are the best years for us, when we can go to school and go out to work and be free." "Free? What do you mean?" "We can go out during the day and meet people and go shopping with our own money. When you become a mother you have to become more serious – and that lasts for the rest of your life."

The girls in the sewing room were less excited about the prospect of work. Less academically-able than their peers, they had been directed towards the more manual of the vocational options, where they could specialize in sewing, knitting, cooking, hair-dressing and the like – the stereotypical 'pink-collar' skills that equip a woman for low-paid employment. Government statistics reveal 5,225 young men enrolled on industrial training courses, and a further 442 learning about agriculture – but not one young woman.

I discovered that there was a growing home-working industry in Jordan: women are provided with the sewing or knitting machines, plus materials, and are paid according to the number of garments they produce in their own homes. "How much can they earn?" I asked the sewing teacher, wanting to compare it to the 200-dinar average monthly wage for a man. "I think it's about 15 dinars for a week's work," she said. "But some of them are only doing this so they can become better wives."

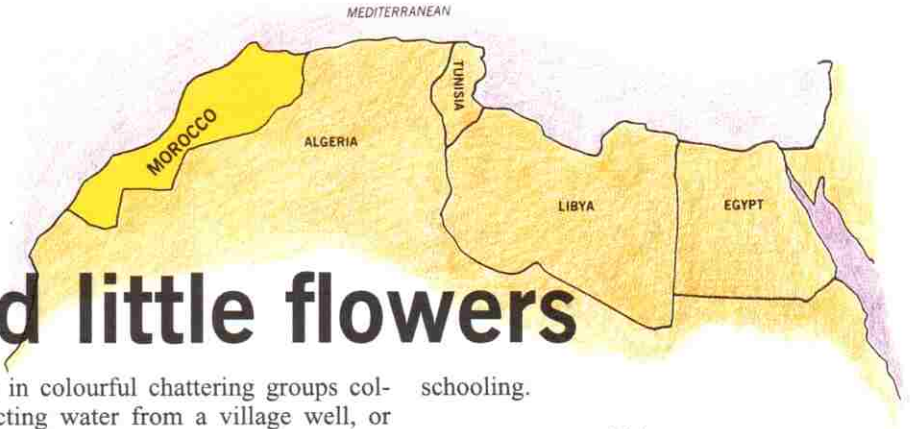
A group of the girls were nudging each other and giggling. "Samah's already engaged," they said, pushing a pretty 15-year-old forwards. Her hair was dishevelled and her clothes threadbare, but her brown eyes danced as she answered my questions. "He's my cousin. He's been waiting for my 15th birthday so we could get married. I'm going to have six children: three boys and three girls," she paused, suddenly shy. "I really love him," she said. "And will you work when you're married?" "He'll decide, but I think he'll want me to stay at home." On this – again – there was universal agreement among the girls. "But what if your husbands are unemployed?" I asked them. "I suppose I'd have to work in a factory," said one. "I wouldn't marry a man without a job!" declared another, laughing.

It wasn't until I spoke to the scientists that I found any girls who envisaged working after they had their first child. "I want to fight cancer because it is killing people I love," said an earnest 16-year-old with heavy glasses. "And I want to be independent when I get married, with my own salary." Two or three children seemed to be the consensus among these determined career girls. "What if your husband doesn't agree?" "I'll make sure he agrees before we get engaged," she said firmly.

Maintaining respectability is very important in Jordanian society. The girl engineering students I spoke to refused to talk to me in the cafeteria, insisting on going to an empty lecture-room instead. "We can buy our food there, but if we are just talking, the boys will think we are making ourselves available to them." "But when you graduate as engineers, surely you'll be working with men all the time?" "It's different when you are at work. The men know you are qualified. They know you have a reason to be there. But still, you can't work late."

Some were wearing Western clothes – skirts and jumpers, wildly coiffured curls – others were more soberly shrouded in scarves and jellabas. Why the difference? I asked. They shrugged, laughing. "There's no rule: it depends on you. If you wear a jellabah you don't have to think about what to wear or worry about people looking at you. But it's very unusual to dress like Wasan." They indicated a young woman covered from head to toe in shades of grey and black, with just a slit for her eyes.

"I like it," she replied simply when I questioned her. "It's something I choose to do because of my religion." "Will it prevent you working?" I asked, intrigued, because she'd said she would be working on a building site as a structural engineer. "My personality will triumph!" she said, and her brown eyes shone with mischief. ■



Tiger cubs and little flowers

I was sitting in a cafe eating couscous when four boys threw open the door. Cocky and unwashed, about eight years old, they darted from table to table, proffering packets of Marlboro cigarettes. When no-one brought anything, they knocked carelessly into the chairs and gestured obscenely at us as they ran back out into the street.

Morocco's cities seem to be full of young boys working: dwarfed by festoons of sweets behind a market stall,

PICTURES BY DEBBIE TAYLOR

sanding a carved wooden bedstead ready for varnishing, running bent-double with a huge bucket of paint. In the countryside too, there they were: herding goats and sheep along the roadside verges, loading fodder onto small grey donkeys.

But where were the girls? According to UNICEF, eight per cent of Moroccan children under 14 years of age are "economically active" and of these nearly three-quarters are girls. I saw a few in the rural areas: sitting alone on a hillside watching sheep nibbling the stubble of the last harvest, or in colourful chattering groups collecting water from a village well, or plodding in slow crocodiles, laden with mountains of firewood. But these were only a fraction of the estimated 31 per cent of rural girls aged under 14 who are working.

The reason for their comparative invisibility in this predominantly Muslim country is that parents want to protect their daughters from moral corruption – even at the cost of exposing them to economic exploitation. Those not working for their own families – around the house or on the farm – are overwhelmingly employed indoors, and supervised by a woman. In urban areas, for instance, 54 per cent of working girls are maids and a further 39 per cent are apprentices in carpet factories and the like – often under the tutelage of a *maalema* or woman manager who liaises with the owner on their behalf.

"Parents are keen to see their daughters working," reported researchers from Anti-Slavery International in their survey of child labour in Morocco. They like to know the girls are "out of mischief and under supervision". And, with an estimated 15 per cent of families living in what the World Bank terms "ultra poverty", the meagre wages even an eight-year-old daughter can bring in can significantly alter the household's finances. UNICEF has calculated that three daughters in domestic service can net the equivalent of one working-class man's wages each month.

This combination of factors – the requirement that daughters be protected and their parent's dire need for additional income – is what underlies the glaring disparity between boys' and girls' enrolment at every level in Morocco's educational system. Eighty per cent of eligible boys are enrolled in primary school, compared with 60 per cent of girls. In rural areas the gap is even wider, with only 44 per cent of girls enrolled and a paltry 29 per cent – less than one in three – staying the course to complete their primary education, compared with 76 per cent of boys enrolling and 63 per cent completing their primary schooling.

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"But I have only been taking it on the days we have sex," said the young woman. The nurse sighed and took out a new packet of contraceptive pills. She pointed to the arrows on the foil, speaking slowly and jabbing at the printed instructions with her finger. "Every day. Otherwise they won't work. See – that's what the arrows mean."

The nurse turned to me: "Sometimes they start in the wrong place; or if they forget, they take three or four the next day to make up for it. It's because they can't read. It's hard for them to remember this kind of thing: the arrows don't mean anything to them."

The young woman was laughing, pulling up her red-and-white striped skirt to slip the pills into a pocket in her leggings. Her seventh child peered out from the blanket tying him to her back. "Will your photos be seen in Morocco?" she asked me, suddenly anxious. "My husband will beat me if he thinks other men have seen my picture."

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"Allah bless the King!" The old woman flourished her pencil triumphantly at me. "Now I can read the Qur'an for myself and find out what it means. And I can tell whether my grandchildren are lying when they say they have finished their homework. Look! This is my signature; this is my own name in writing. I couldn't do this before the King started these classes for us." She beamed at me and gestured round the room. "So many women come that we feel safe walking here – even in the dark. At seven o'clock you will see lights on in all the schools: for the grannies and the mothers and the girls who didn't go to school when they were little."

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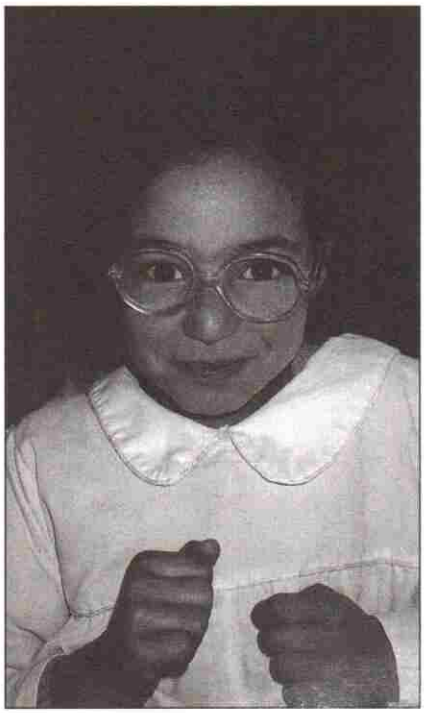
Last year, in the autumn, national television carried a short advert. It showed



a little girl tugging at her father's hand. "Please send me to school," she says, while the voice-over urges parents to allow their daughters to "contribute to the development of Morocco". It was part of the Ministry of Education's campaign to increase the enrolment of girls in primary school. With women's illiteracy at 78 per cent – compared with a rate of 51 per cent for men – and women constituting only 19 per cent of the labour force, the country has begun to take serious steps to raise the educational status of its female citizens.

In the past the struggle has been simply to keep pace with the demand for schools. Double-shift schools have been commonplace in many urban areas for more than a decade and, since 1990, communities have been building their own schools. More recently there have been attempts to minimize the economic costs of education by providing school meals, free glasses for children with vision difficulties and experimenting with rent-a-book schemes. The television advert marks a shift in emphasis – encouraged by UNICEF and the World Bank – towards reducing the gender gap in education.

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"Can you turn that thing down?" The youth worker had to shout to make himself heard above the gunfire and fierce music that blared from a huge television mounted above the ping-pong table. In the comparative quiet that followed, he explained what he and the other volunteers – three women and three more men in their twenties – were trying to achieve in the youth club in Tetuan.

"The boys are 'tiger cubs' and the girls are 'little flowers'," he said. "This place is somewhere for them to go after school. Otherwise they just hang about in the streets getting into bad habits – you know, smoking, drinking, stealing from shops, even drugs." "Not the little flowers, surely?" I asked. "Oh no!" He laughed. "It's only the boys who go in the streets. For the girls it's the opposite: this is the only chance they get to go out of the house. When we first opened they weren't even allowed to come here."

"Was that a problem when you had the family planning lectures?" I asked, knowing that the youth clubs had been part of a recent initiative to familiarize young people with the rudiments of contraception. He nodded ruefully. "I think we had about three girls, who came with their mothers. The rest were all boys and men. So we had to organize a special evening for the girls where they could hear about these things without the boys seeing them."

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Fatima Habti a tradition midwife and family planning worker settled herself more comfortably on the low divan and shrugged elaborately: "School is expensive," she said. "Not just because of the books and the writing things; but also because you can't send your children to school in torn clothes. They have to have shoes, too, and a white overall, and a special bag. But the worst thing is not knowing what they will learn from those teachers. We don't like our daughters to be taught by men. But you can't always trust the women teachers either. Most of them are from the city, you see: they don't always give the right example."

We were in a village called Hadl Arabia, an hours' drive south of Tangier. Rain pattered on the tin roof and the smell of frying wheat pancakes came from the kitchen across the muddy courtyard. "There are three schools in this area now and most people send their children," she went on. "But there's one couple with 12 children and none of them are at

Fatima Habti

school. It's partly because they live further away; but the main reason is because the children are working all day on the farm." "I suppose 12 children means an awful lot of shoes and books," I said. "Do you know why she had so many?"

"When you start, you don't think," she said, remembering. "You just want lots of babies, as soon as possible, to stop your husband divorcing you. Then later, when you are tired, it depends on the husband. Some of them agree, but when the family- ▶

The man with 15 daughters

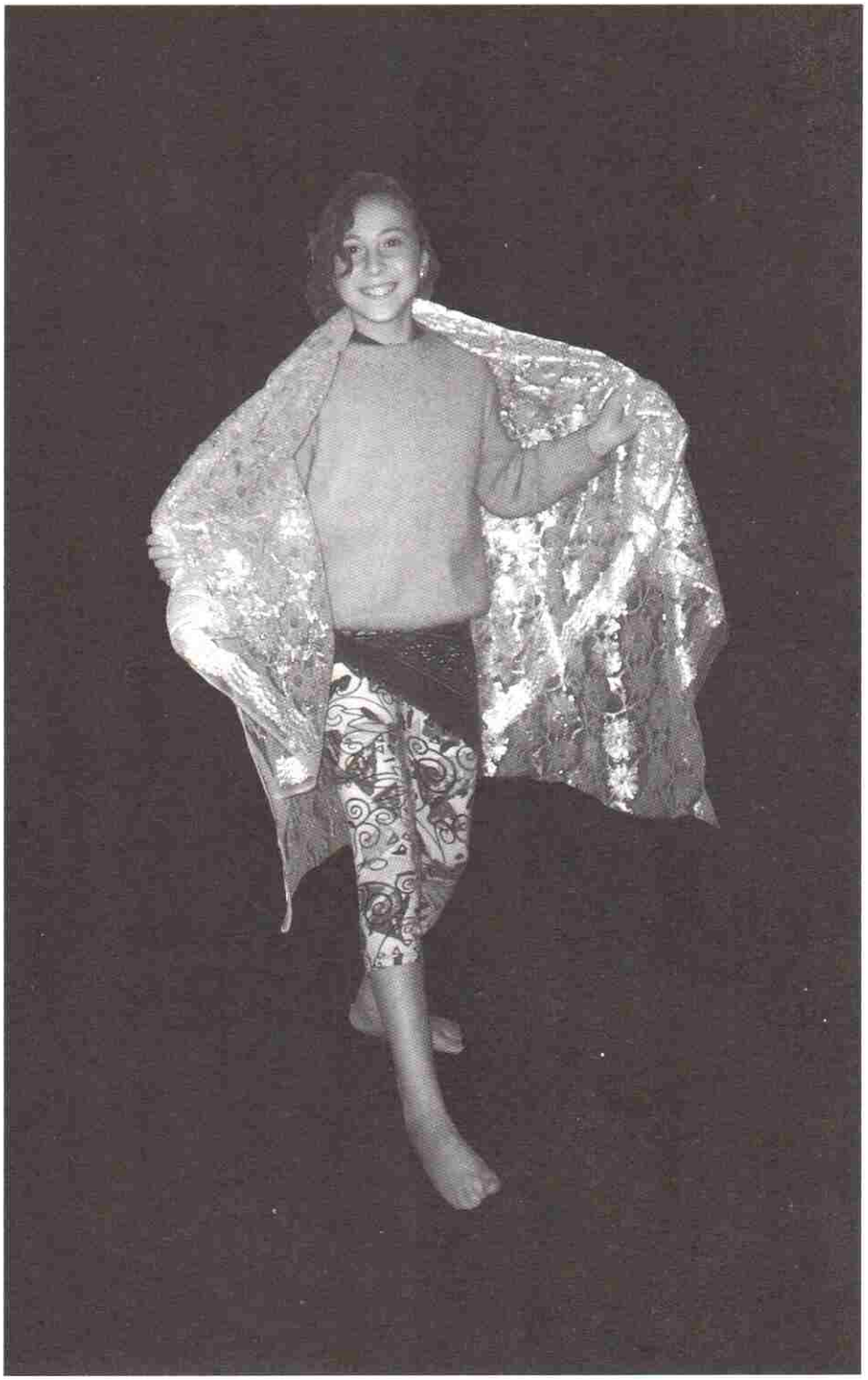
Once upon a time there was a man who longed for a son. Each time his wife got pregnant, he prayed to Allah that it would be a boy; but each time the baby was born, he turned away from it in disgust. Eventually he had 15 daughters, but he neglected them and ignored them. One of the girls had been born dumb, but he didn't even realize: because he had never tried to talk to her. The girls grew up without education and, though the elder sisters tried to find respectable employment, they soon fell into bad ways. The first became a prostitute; the second a nightclub singer; the third had an illegitimate child; the fourth became a drug addict; the fifth hired herself out as a dancer.

When the younger sisters saw what the future seemed to hold for them, they got together and resolved to confront their father.

The next evening, when their father came home, the girls scurried around as usual, bringing him food and drink and making him comfortable. Then, while he was sipping his mint tea, they announced that they had organized some entertainment for him. At this point the five eldest daughters came in wearing their working clothes and each sang a song describing her life.

The father was appalled: "I am ashamed of you," he said. "No decent daughter should be found doing these things." Then all 15 girls turned on him. "You should be ashamed of yourself, not of us." they said. "You are responsible for what we have become. If you had loved us and valued us and sent us to school, we would have become daughters to be proud of."

This is a summary of the plot of the winning play in a youth drama festival organized last year by the Association Marocaine de Planification Familiale in association with UNFPA. Youth clubs all over Morocco were invited to devise plays on the theme of education and family planning. The winning play, written and performed by the Tetuan youth club, will be professionally produced and shown on national television this summer. ■



planning people knocked on that woman's door, her husband just shouted to them to go away."

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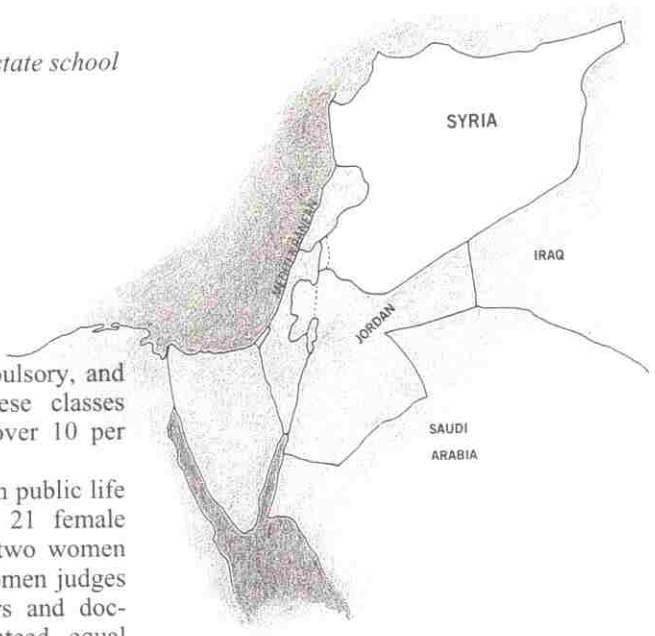
Unmarried mothers in Morocco are overwhelmingly uneducated, illiterate, aged between 14 and 19 and come from poor families, according to UNICEF. "Premarital sex is so shameful, people don't like to think about it," explained Zeineb Benjelloun of the United Nations Population Fund. "The daughters of rich parents get private abortions. But the poor girls get thrown out or banished to a distant relative. We have orphanages full of illegitimate babies." In fact there are over 200 orphanages run by the Ministry of Social Affairs alone.

Mohamed Bensehli, who coordinates the Association Marocaine de Planification Familiale branch in Tangier, agreed. "In practise, family planning is only really used by married women – and even then, they don't consider it until they have proved their fertility by having a baby, sometimes three or even four. Our workers never ask whether the woman is married when she comes to the clinic, but I'm sure they all are." ■

Children returning from a state school near Safita.



Girls ahead in Syria

Jeremy Hamand

Over the last two decades, Syria has made great progress in enrolling girls in school and now has one of the highest female school enrolment ratios in the Arab World. A law passed by parliament in 1973 made school attendance compulsory for all children up to the age of 13, and from this year there will be nine years of compulsory schooling for both sexes, to the age of 16.

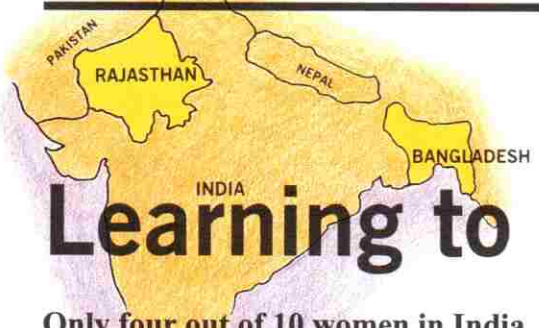
Female enrolment is now over 90 per cent at the primary level and over 50 per cent at the preparatory (lower secondary level). Female illiteracy has fallen from nearly 60 per cent 20 years ago to just over 30 per cent today. Attendance at literacy classes for illiterates aged 13-45 is compulsory, and female enrolments at these classes have been increasing at over 10 per cent a year.

Women's participation in public life has also increased, with 21 female members of parliaments, two women ministers, a number of women judges and many women lawyers and doctors. Women are guaranteed equal rights and opportunities under the Constitution, and labour laws provide for equal pay and maternity benefits.

Despite these advances, fertility is still very high in Syria, with women bearing an average of over 6 children. According to Mrs Hajar Sadek, Secretary-General of the Syrian Family Planning Association, family planning provision, although weak in the past, has been much improved in recent years, and now services are provided in 560 maternal and child health clinics throughout the country.

In the past, the Government was strongly pro-natalist, and a law which encouraged women to have as many as 10 children was only repealed in 1988, thanks partly to the efforts of Mrs Sadek, then a member of parliament. Now, she says, the health benefits of family planning are well understood by the authorities, and the Government is working on a population and family planning policy which is expected to be issued shortly. ■

PETER CHARLESWORTH



Learning to write in the sand

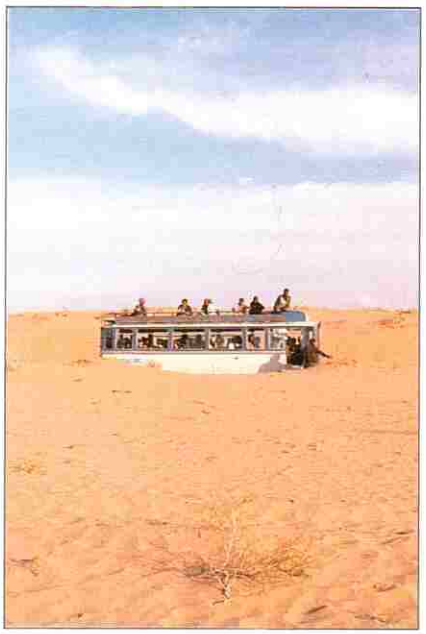
Only four out of 10 women in India can read and write and in Rajasthan the figure is nearer to two out of 10. It is here, in the drought-prone desert district of Bikaner that a state-run rural health and development trust has begun to bring the women and girls into the light of literacy, with its dramatic impact on their lives. *People & the Planet* **correspondent** *Bishakha Datta* **travelled to Bikaner with photographer** *Sanjeev Saith*. **This is their report.**

The desert has no memories. A camel clops across with an empty cart; the sand covers his marks in minutes. The tar road coughs up mud as a sand dune shifts shape. The bus driver stops and looks; there is no road any more. There is no footprint here, nothing that the desert can remember, save a dried green shrub that refuses to leave.

Literacy has made as much of a dent in this North Indian sandscape as a swirl of dust. Ashok Bhati realized this when he tried to get a school started in one desert settlement four years back. The Rajasthani villagers living in the stark stretches surrounding Bajju had little tradition of schooling. Eight out of every hundred men living in 24 villages could read and write; practically none of the women could. "The literacy rate among women in 24 villages we surveyed was 0.01 per cent," remembers Bhati, who manages the education projects of the URMUL Rural Health Research and Development Trust.

These numbers meant nothing to the villagers. "We have cows and milk," they told Bhati. "Why do we need literacy?" The trust – which was already providing health services in the villages – set up a few schools; no children came. Once a week, as the trust jeep swept through the village on its health rounds, a clutch of children showed up at school. They stayed there till the jeep left. "We realized what was happening on one visit," laughs Bhati. "One child said, 'The jeep has come. Can we go now?'" The trust closed down the schools. It didn't seem as if literacy could ever root itself in this sandy soil.

Ultimately, the same soil sprang the seeds of female literacy. As drought routinely destroys rain-fed crops here, the villagers have to work on government drought relief projects. Many women who work on these projects lose out because they can't read or write. "A woman cannot manage the relief programme," says trust secretary Sanjoy Ghose. "Because she is illiterate, she feels totally powerless. She can't read the muster rolls, she can't mark attendance at the project. She gets exploited. We actually decided to shift into education after the 1987 drought. It was an opportunity to empower women."



A bus drives through the desert road. Right: *Parmeshwari, who is crippled with polio, joins her sister and friends in a literacy class*

The trust decided to start with children. "Adults are not interested in learning," explains Ghose. "They think it's theoretically okay for others, but not for themselves. Ultimately, literacy has to do with attitudinal change."

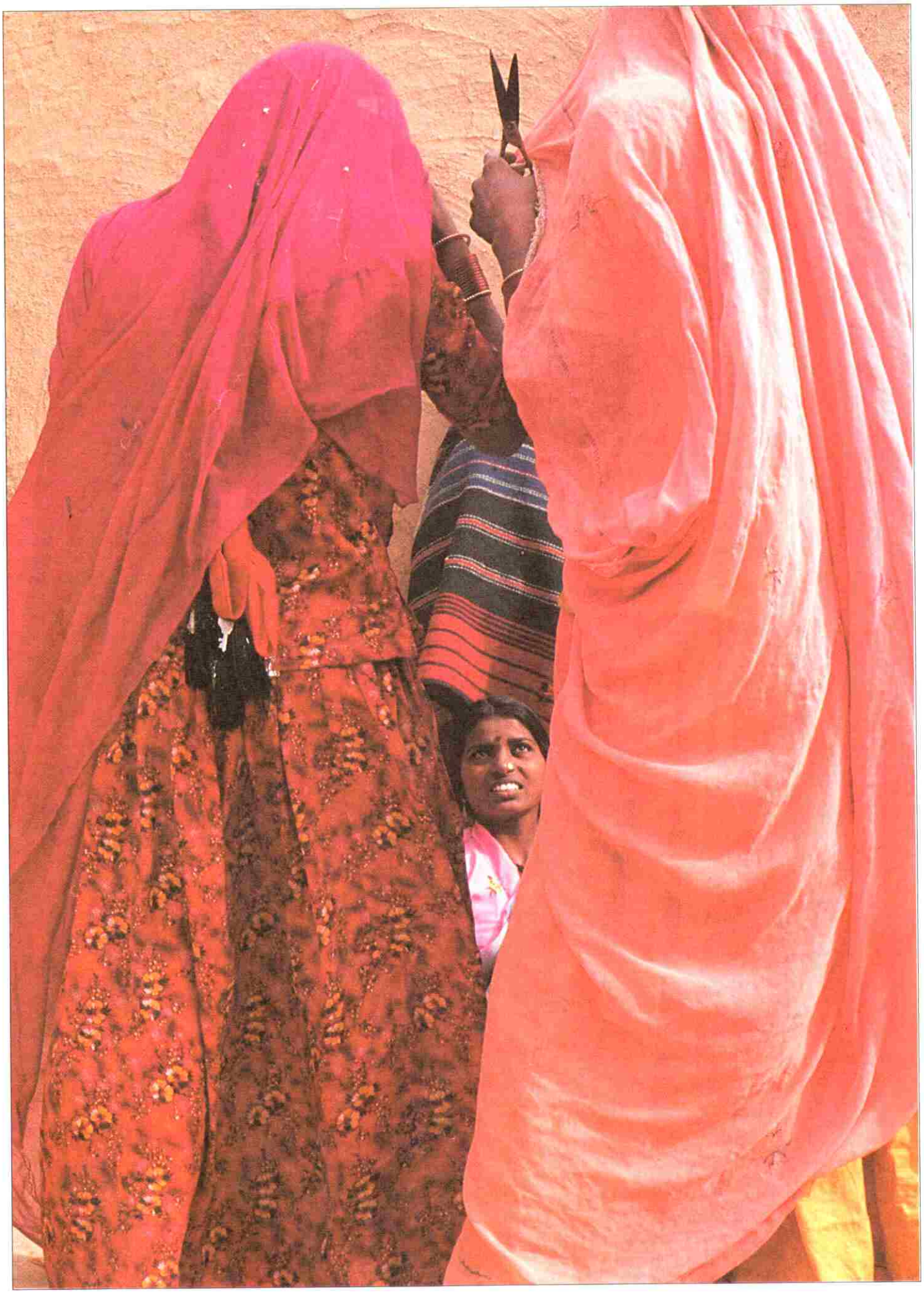
Changing long-held attitudes on literacy is hardly easy. Especially when the district in question – Bikaner – has a female literacy rate of 17.57 per cent. Especially when the state in which this district falls – Rajasthan – has fewer educated women than any other state in India. According to the 1991 census, Rajasthan's female literacy rate of 20.84 per cent was the lowest in India, where 39.52 per cent of women are literate.

If these numbers speak of the specially subordinate status of Rajasthani women, so do the region's customs. Married women still cloak their faces in the *ghunghat* – a thin veil – when men are around; the seclusion that this veil enforces is etched into the ethos, where a well-known women's proverb goes, "*Ghar se meri doli nikli thi – abhi arthi niklegi*" (my palanquin has left the house, now only my corpse will). Bhati explains that even if a woman is ill, she is not supposed to leave the house.

Where stepping outside is taboo for women, education is light years away. Uneducated villagers do their own cost-benefit analyses of female literacy; since a girl is *paraya dhan* – another's wealth – what is the use of educating her? Better to let her graze goats and fetch water till she gets married. No wonder that in this degraded habitat, a good wife is defined as one who "will walk 10 kilometres to get water."

This 10-kilometre trudge affects female literacy in a more deep-rooted way: the degraded desert habitat means a heavy daily workload that leaves less time for education. "It is well-known that the girl child plays an important role as an assistant to the mother in doing household work," writes environmentalist Anil Agarwal in the magazine *Down to Earth*. "When the mother's work burden is made heavy by...environmental degradation...it would be practically impossible for the girl child to go to school." Although Agarwal's study was conducted in a Himalayan village, the conclusions could hold for all degraded habitats.

Even in the village of Mithariya – named after its supply of "sweet



Female literacy in India

In 1991, as Aysha Begum, a neo-literate woman lit the ceremonial lamp that declared the Indian district of Ernakulam fully literate, 197 million Indian women remained completely illiterate.

Social cultural and economic factors keep women in countries like India illiterate: the 1991 census shows that while 64 per cent of Indian men are literate, only 39.5 per cent of women in India can read and write.

Female literacy rates vary from region to region within the country. While 87 per cent of the women in the southernmost state of Kerala are literate, only 21 per cent of the women in the northern state of Rajasthan can claim this status. States with high female literacy levels usually have low rates of population growth: Kerala, where female literacy is the highest in India, reduced its annual population growth rate to 1.3 per cent by 1991.

With every increase in the Indian population, the numbers of illiterate women increase. In 1981, there were 181 million illiterate women in India. By 1991 this figure reached 197 million – an increase of 16 million in one decade.

But with every census the percentage of literate women in India is also increasing: from 9 per cent in 1951 to 15 per cent in 1961 to 22 per cent in 1971 to 30 per cent in 1981 and 39.5 per cent in the last census.

Female literacy is finally emerging as a priority for the government. In 1988, the government set up National Literacy Missions in 70 districts of the country. The mission – which works through voluntary agencies – is trying to educate underprivileged groups, including women, in these districts.

Some successes have already been notched up: the state of Kerala was declared fully-literate in 1991, and other southern districts are experiencing the effects of female literacy: demands for equal wages, an anti-liquor agitation, improved child health. Education is quietly changing the lives of these women at least. ■

water" in an area of brackish water – the girl children of the Lalchand family have little time for school: their brother shyly says they are out grazing the goats. Fodder is scarce; it has to be imported from other states. He is one of 125 children attending the government school; there are so few girls in his school – just 15 – that he knows that "three of the girls are in the fourth class, five of them in the third class."

The schools run by URMUL have better boy-girl ratios. In Mithariya's non-formal school, about 14 of the 25-odd children present are girls. "There are fewer girls today," explains the teacher. "This year, the rains were good. They are on the farm."

Sharada Devi is only one of two female teachers in the trust school. She has attracted many girl students.

In the village of 4BGM, Sharada Devi teaches 35 girls and 45 boys. All villages here are identified by a web of numbers and alphabets that pinpoint the village's distance from the Indira Gandhi Canal that has brought water to the area. The alphabets indicate which tributary of the canal feeds the village; the number refers to a cluster of villages irrigated by the Bhagu Minor.

Here, where nothing can be seen for miles, girls walk five kilometres to the trust school each day. The trust school is run under the Shiksha-Karmi Programme of the state government funded by the Swedish International Development Authority: it replaces outside teachers reluctant to come to these remote areas with teachers drawn from the community. A Shiksha-Karmi school can be staffed by two persons – ideally a man and a woman – with five to eight years of formal schooling.

Female teachers are hard to come by. Sharada Devi – who studied until the seventh standard – is one of only two female Shiksha-Karmi teachers in the area; her presence has drawn girls to school. "Families never used to send their girls earlier because there was no female teacher," she says. Female teachers are such a vital catalyst of female literacy in India that the national-level Ramamurti Committee of Education recommended in 1991 that at least 50 per cent of teachers in primary, middle and high schools should be women.

Easier said than done. In 4BGM, Sharada Devi was the only educated woman allowed to teach. "There were other educated ladies," she says, "but their husbands refused to send them." She now teaches a syllabus that tries to go beyond the artificial world of 'A' for an apple that few desert villagers can afford. "We teach them how to conserve the water of the Indira Gandhi canal, how to irrigate their fields using less water. Education is not for employment. We show them how they can use it in their own lives."

Showing villagers how their girls can use education is a challenge for every teacher. Schoolteacher Anjuman Chauhan, who sends her three daughters to school, tries to convince parents that educated girls can write letters home after marriage. Shiksha-Karmi teacher Mohan Ram brings his sisters to the school where he teaches. "Then other people started sending their daughters." Another teacher tells parents that their daughter will be able to draw up lists if she can write. And the trust itself pays the Rs 10 compulsory monthly contribution to the teacher's salary when the family sends a daughter to the non-formal school.

If parents don't want to send daughters to school, in-laws are even less keen to send daughters-in-law. Women marry early here; community health worker Harma bai remembers how her *lehnga* or skirt fell off when she got married at the age of seven. Child marriage is so entrenched in Rajasthan that a women's activist trying to stop it was gang-raped this year.

Not only does child marriage rob a girl of the school experience, it often

Educating girls in Bangladesh: exploding the myth

Poor landless families, who account for at least half of all rural families in Bangladesh, cannot afford to send their children to primary school. Even if the school charges no fee, the family, barely eking out a living, cannot afford the cost of exercise books and pencils and school-dress. Nor can it afford to do without the contribution even a young child has to make to the family's meagre livelihood. This is more so in the case of a girl child who has to look after the siblings and household chores. In any event, the parents do not see much of value that the primary school can offer to their female child. So goes the conventional wisdom in Bangladesh.

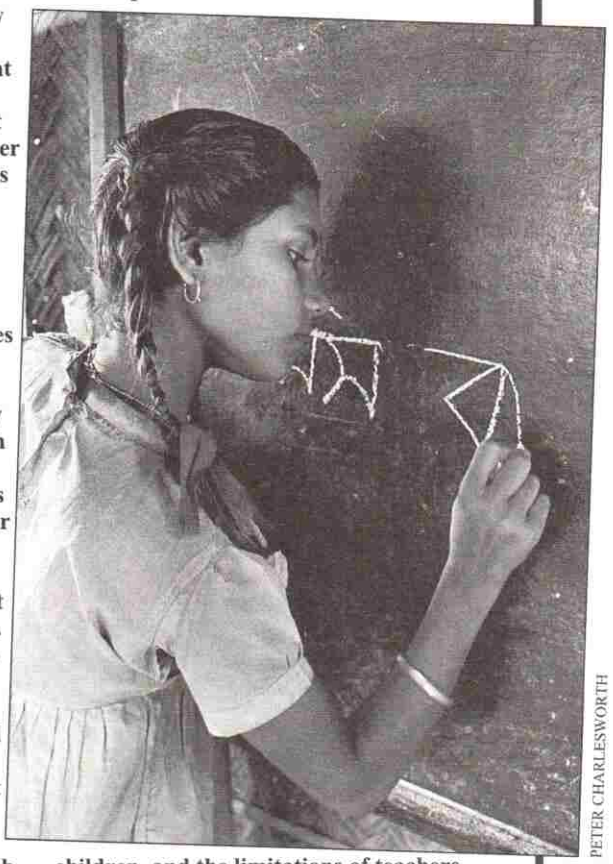
There is much truth in this bleak assessment of the prospects for primary education for children, especially girls, from families in extreme poverty. BRAC (Bangladesh Rural Advancement Committee), a non-governmental organization engaged in rural development, poverty alleviation and basic education, has shown that the daunting obstacles to access to education for poor children can be overcome. The key to its success is to adapt the learning opportunities to the circumstances of poverty and disadvantage of children rather than require the children to adjust to the conventional rules of the primary school. BRAC has found that parents and children respond when the programme is socially and culturally acceptable, does not impose an unaffordable economic burden, and attempts to meet the parents' and child's expectations.

The overwhelming response to the BRAC non-formal primary education (NFPE) programme has debunked the myth that poor and largely illiterate rural parents are apathetic about their children's education and could not be drawn into participatory community activities in supporting the educational programme. In five years until the end of 1992, the NFPE programme has mushroomed to 12,000 centres serving 360,000 children in two programmes of three-year duration each for 8 to 10-year-olds and 11 to 14-year-olds. Over 70 per cent of the enrolled children are girls – the result of a deliberate policy to give first priority to girls. Almost all teachers are also women in contrast to regular primary schools where most teachers are men, although recently the government has introduced a policy to recruit mostly women teachers for new vacancies. A village managing committee helps in overall management of each centre and a parent-teacher committee comprising all parents meet once a month where parents, the teacher and her supervisor discuss how parents can help in their children's education and protect their wellbeing as well as other specific concerns parents may have about their children. The enthusiastic attendance of parents, mostly mothers, in these meetings belies the image of docile disinterest of illiterate rural women.

The NFPE Centre, known popularly as the BRAC school, is a modest thatch or tin-roofed hut with a packed earth floor, each one of which accommodates 30 children. The course for the younger children offers those who have dropped out from or have never gone to a primary school the equivalent of at least three years of primary education. Over 90 per cent of these children join the fourth or fifth class in the regular primary school. The course for the older children offers basic literacy and life skills which would be self-sustaining – the non-formal equivalent of a complete primary education.

The BRAC schools are low-cost – about US $18 per child for a year which is at least a quarter of the real cost in the primary schools if the very large drop-out and wastage in the latter are considered. Moreover, all learning materials are provided in BRAC and the school hours – only three hours every day and six days a week – are set according to the convenience of students. The cost is kept low by employing teachers on a part-time basis and by eliminating capital costs. A modest rent is paid for the school hut, which is usually an existing structure in the village, refurbished as necessary.

The typical BRAC teacher is a young married woman from the neighbourhood with nine or 10 years of schooling, who is given an intensive two-week initial orientation, close and regular on-the-job supervision, and a monthly one-day group training. Simplified and attractive instructional materials – textbooks and teachers' guides have been prepared based on official primary curriculum but adapted to the life situations of children, and the limitations of teachers and facilities.



PETER CHARLESWORTH

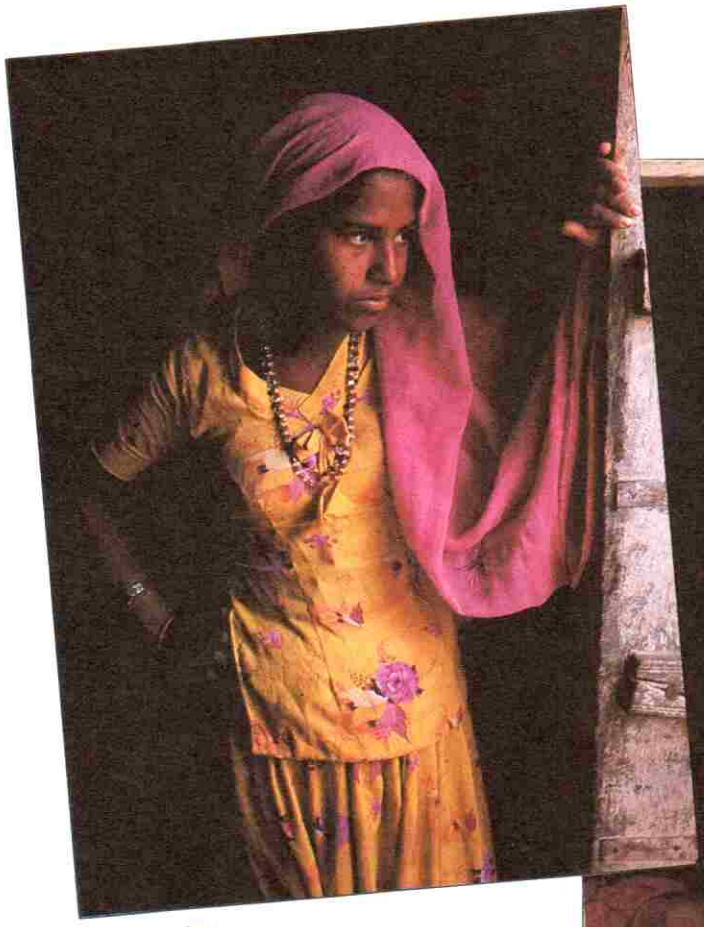
The BRAC schools, deliberately targeted to poor children who are not served by the regular primary schools, are seen as a complement to the national system rather than an alternative. But by demonstrating how those most difficult to reach are served effectively, BRAC schools also point to possibilities of making the total primary education system perform effectively. ■

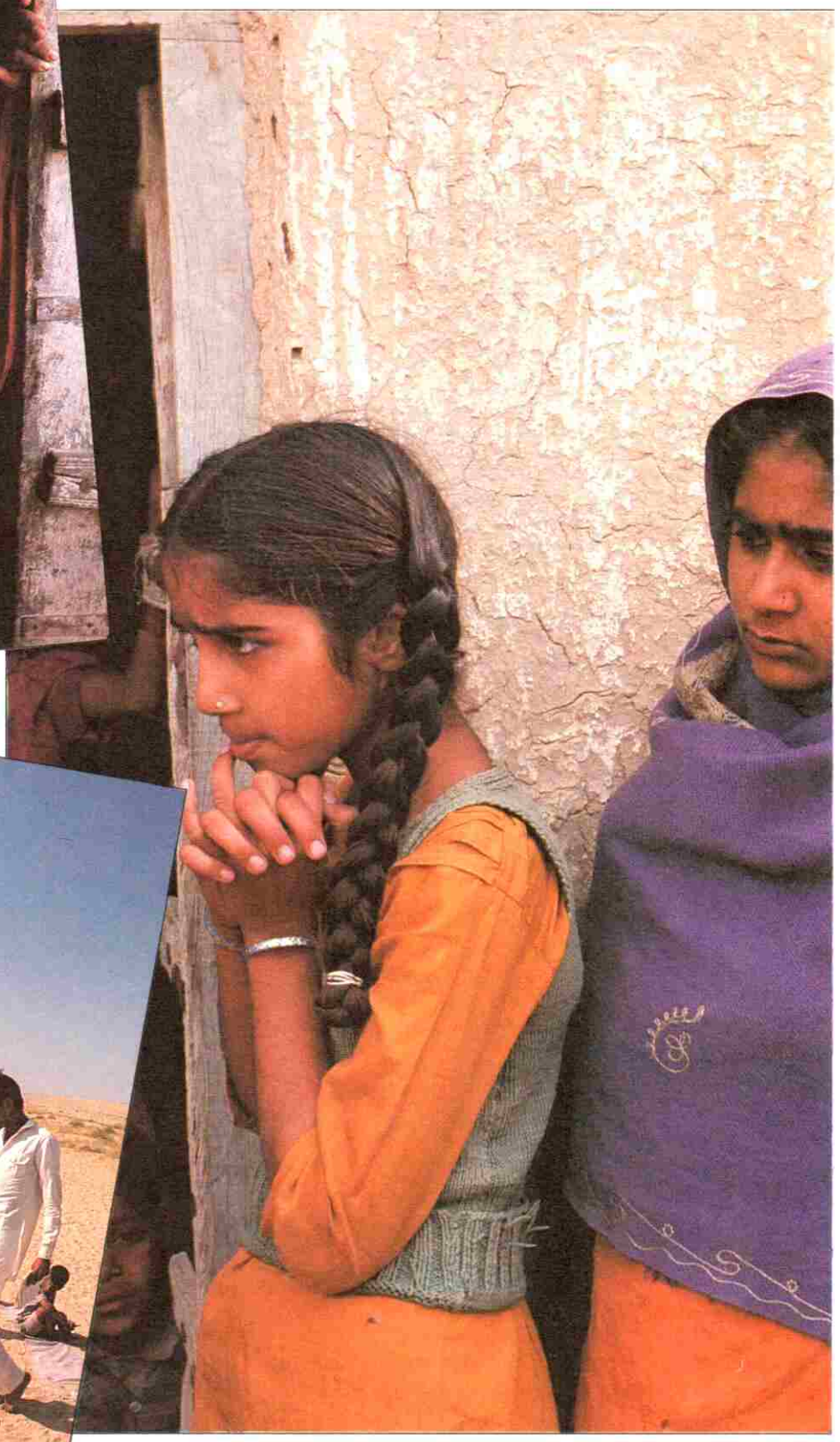
Manzoor Ahmed
Associate Director, Programme Division, Unicef, New York.

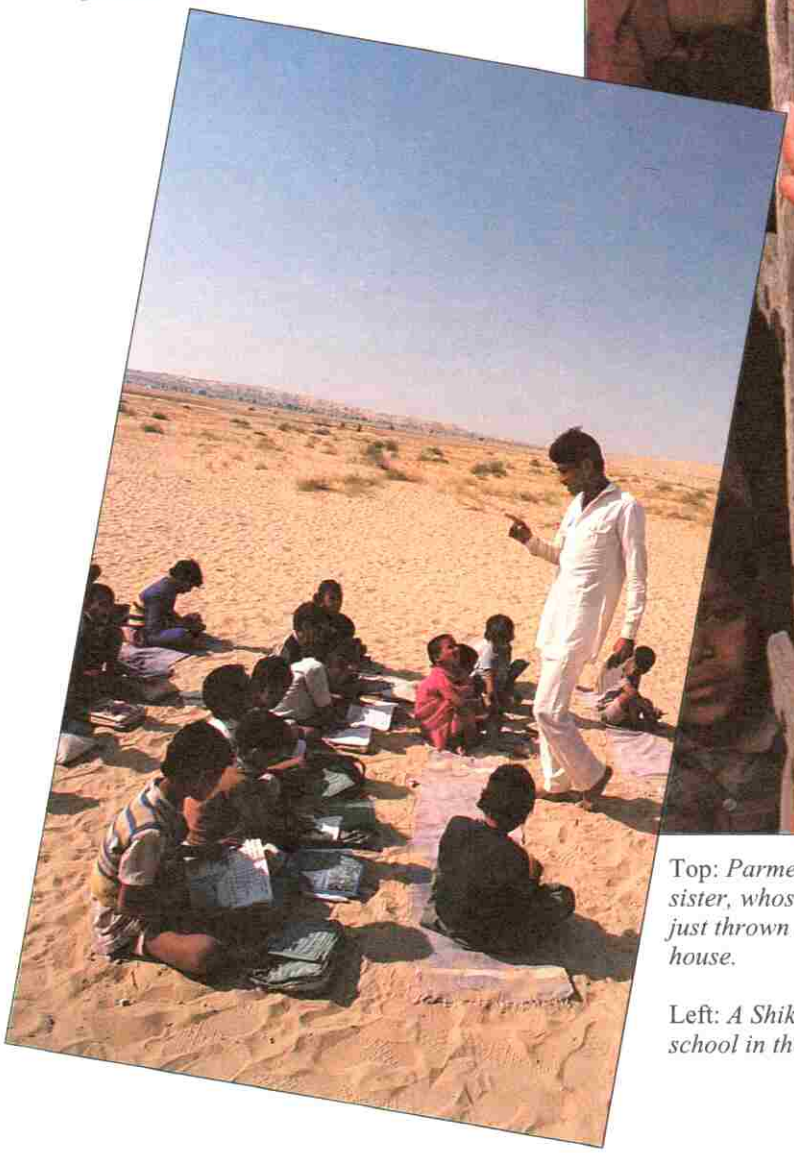
robs her of her health. Those who marry as children are barely teenagers when they start bearing children; they bear more children than those who marry later. The desert landscape is littered with families with more than eight children. Health worker Harma bai has borne 10 children. Six of them survived: five daughters, one son. "After I had two daughters, I had a son. But he died. So we kept on having children."

These children figure as mute statistics in Bikaner district's high annual population growth rate of 4.2 per cent and Rajasthan's growth rate of 2.47 per cent. "It's the classic high fertility-low literacy trap," says Ghose. The linkage between female literacy and fertility is more evident from another set of figures: during the last decade, the four Indian states with the lowest female literacy rates contributed 42.5 per cent of the growth in population.

Female education is not needed here merely to bring down numbers. Education, in its broadest, most humane sense, is needed to keep women and children alive. Child mortality rates are high; women have never been taught safe reproductive practices. "Earlier, they used to cut the umbilical cord with a sickle," says Harma bai, who makes women understand the need to boil blades used for this purpose. "They used to place the pregnant ▶



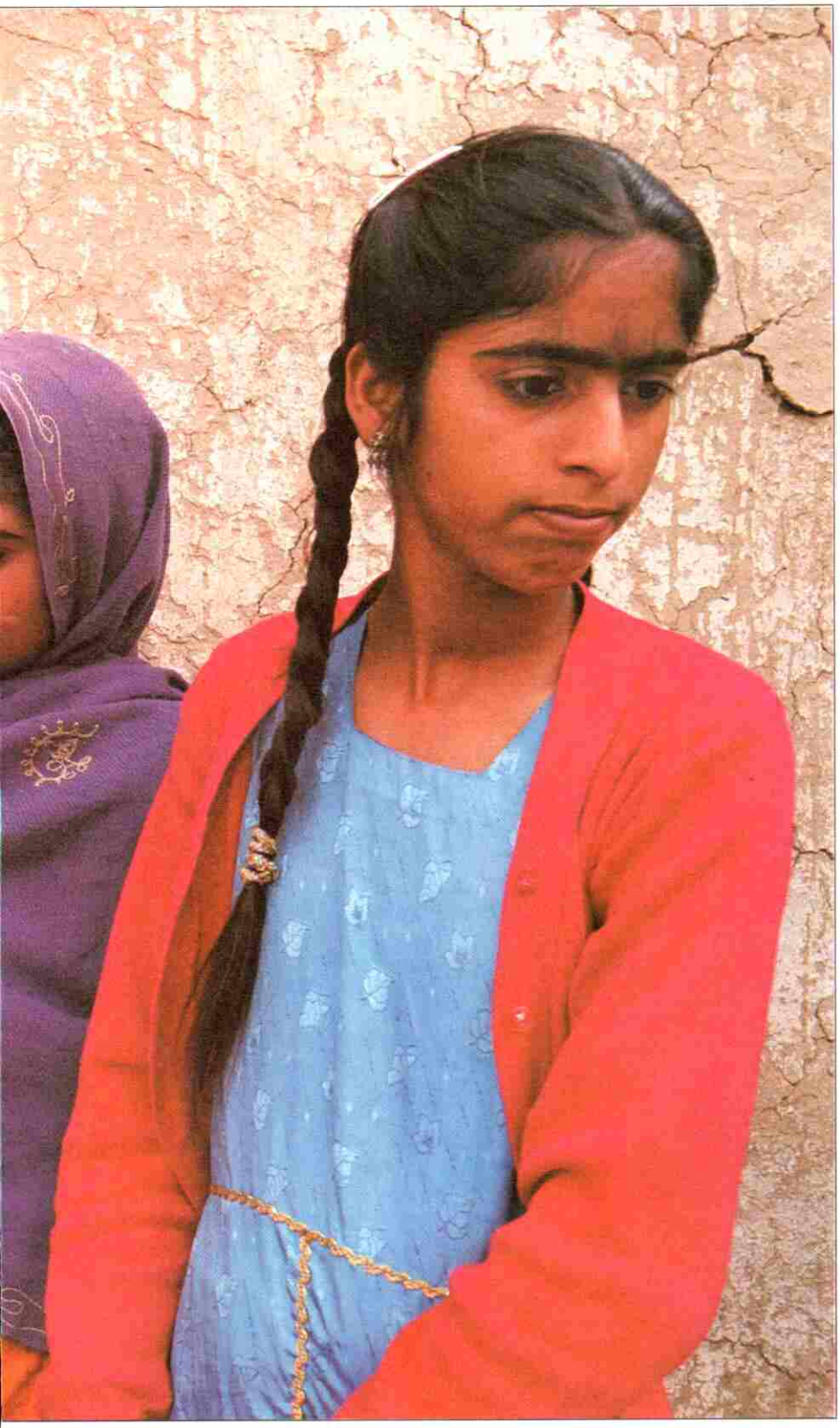




Top: *Parmeshwari's sister, whose in-laws have just thrown her out of the house.*

Left: *A Shiksh-Karmi school in the desert.*

Above: *Girls wait outside a class for young children in Gajner village.*



woman in the sand. So there were all kinds of infection." Until issues like these are addressed, urging women to plan their families has little meaning.

The local health workers – called *swasthya saathis* – try to teach village women safer birth practices and basic family planning. "Earlier, many children used to die without a *tikka* (inoculation)," explains Harma bai. "We try to convince them to inoculate their children. We tell the woman she should eat properly when she is carrying the child in her womb."

Harma bai, who cannot read or write, carries a medicine pack for simple ailments. Each medicine is packed in a different-coloured container so she can sidestep the hazard of illiteracy. She now advises men on minor complaints, her veil firmly covering her face as she talks to them. Her role has brought her newfound respect in the male-dominated village community. "When they see me, they say, 'Doctor sahib has come.'"

Other women in the desert are gaining newfound strength by painstakingly learning to sign their own names. The trust runs an adult literacy programme which tries to take women through five years of formal schooling in 24 months. Vijaylakshmi Chauve, who has been running this programme since July 1992, explains that "the purpose is to give them some education so that they can work". The 15 women who have enrolled for this programme are given a stipend of Rs 100 each month and housed and fed at the trust's training centre. They include Chanda, whose husband died a few years back; Parmeshwari, who lost her legs to polio when she was a child; and Parmeshwari's sister whose in-laws have just thrown her out of the house.

The liberating process of literacy is already being seen among these women. Chanda says she will send her daughter to school "now that I am learning. I know I will". If the trust has its way, Chanda and her 14 classmates will become paid teachers at child centres that it runs in the villages. In other trust programmes, teenage girls are studying and-simultaneously earning through sewing.

It is just a matter of time before education snowballs into greater empowerment for these women, a process that has already been seen in other parts of India. In south India, where female literacy programmes have been in place for a while, children's inoculation rates have shot up, demands for fairer wages are being heard, and women have launched an attack on *arrack*, a local liquor that soaks up the family income. It is only a matter of time before the women of the Rajasthan desert, too, leave their tiny footprints in the sands. ■

Pioneering new approaches

The Rockefeller Foundation has taken the lead in convening an 18-member international donor group which is supporting collaborative activities to promote female education in Africa. Here, *Katherine Namuddu*, senior scientist with the Foundation, based in Kenya, looks at African efforts to pioneer new approaches.

Although most African governments have tried to provide equal opportunities in primary education for boys and girls, in practice, they have fallen far short of the goal. The enrolment rate for girls is generally low: for example it is only 8 per cent in Somalia, 37 per cent in Burkina Faso and Niger and 38 per cent in Mali and Togo. There are high drop-out and absenteeism rates so that on average, of all the girls who enrol in the first grade, only about 24 per cent complete primary school as compared to 65-70 per cent for boys.

However, the problem varies with differences in the history and development of various countries. For example, in Botswana, Lesotho and Swaziland, girls enrol in larger numbers than males, a trend that is influenced by the dictates of mining and pastoral economies. In parts of Nigeria, the drop-out rate of boys is higher than that of girls. In Kenya, Uganda, Tanzania and Zimbabwe, variations in girls' access are more related to geographic location than to socio-economic strata. In Mozambique, the factors that map out a girl's educational career depend on whether the area from which she comes is matrilinear or patrilinear, rural or urban and under Islamic or Christian religious influence. Other factors include the size of the household and whether it is headed by a woman.

Increasing recognition of the complexity of all the varied factors which constrain girls' access, survival, performance, and achievement in school, has led to three sorts of strategic action: those designed to improve access and boost enrolments; those designed to increase survival in the system; and those designed to improve the quality of the learning environment.

In the first category, nearly all African countries are increasing the number of primary schools and places to cater to females and other disadvantaged groups. In urban Mozambique for instance, a shift system has enabled girls migrating from rural areas to enrol in school for the first time. In Nigeria, Kenya, Uganda and Botswana new schools are located within walking distances in rural areas in order to cater to communities whose lifestyles are influenced by unusual religious or environmental demands.

There are special efforts in Zambia to enrol girls at the official age of entry – 7 years. It has been realized that postponing the entry age to 9 or 10 years, which is now the case in many rural areas, results in girls reaching adolescence while they are still in lower primary grades. This often leads to lack of confidence and absenteeism.

It is now recognized that enrolment by itself cannot be a reliable indicator of achievement in accelerated female participation as many girls will drop out. Factors such as lack of fees and instructional materials, uninspiring, fuzzy and negative curriculum materials and teaching methods, teachers' indifferent attitudes, and constant absenteeism of both teachers and girls, all converge to discourage female persistence in the system.

To counter this, many countries have embarked on projects to provide a textbook to every three pupils and thus improve instructional coverage and quality. Communities in Ghana, Uganda and Burkina Faso are being helped to set up book banks and cardboard box libraries in order to supplement classroom learning and support functional literacy in the community.

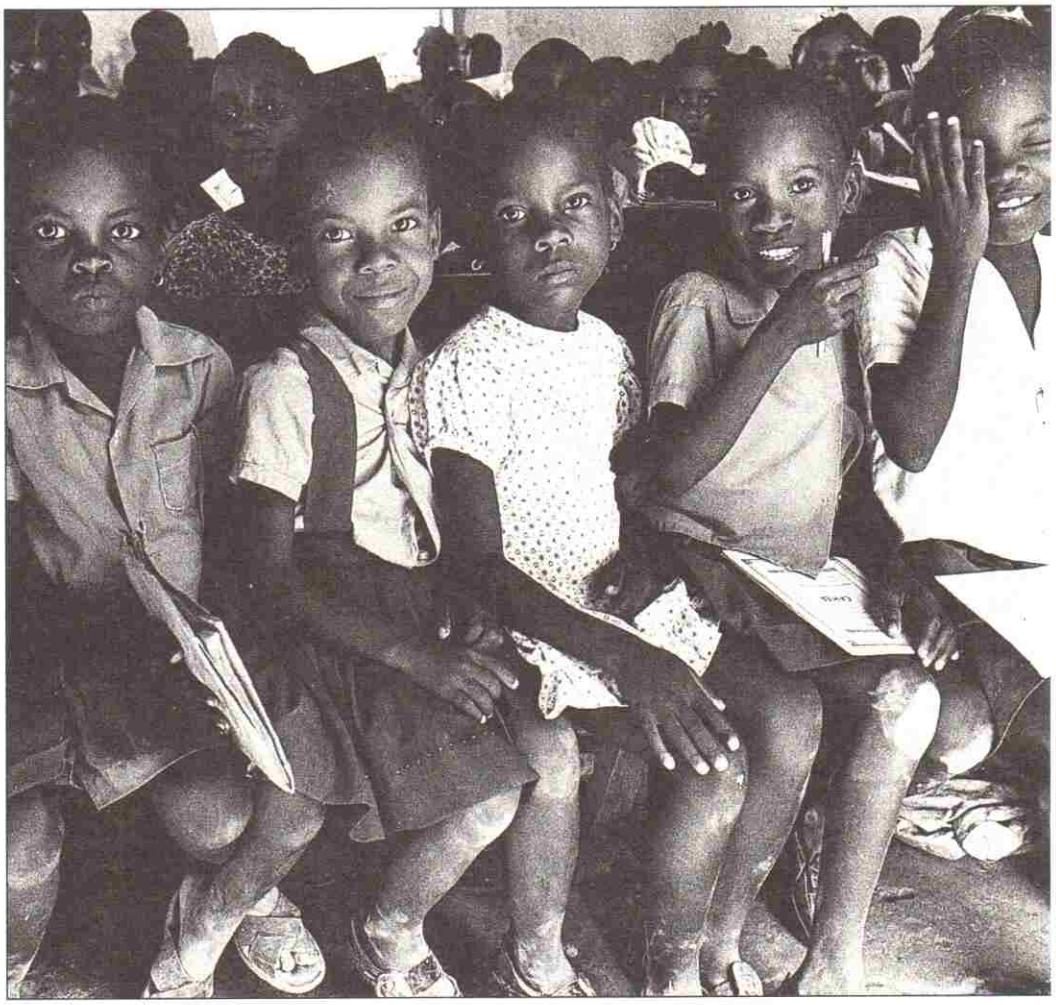
A two-pronged effort to revise curriculum materials and remove gender stereotypes is under way. On one hand, traditional folklore and stories are being purged of their portrayal of women as dull and inferior to men by inserting stories on women professionals and heroes. On the other hand, curriculum materials in all subjects including mathematics and science, long regarded as 'male' preserves, are infused with gender sensitive examples in order to achieve a more equitable balance.

But curriculum revision is a slow exercise which demands resources that many governments lack. It is therefore unlikely to be accomplished quickly and satisfactorily. Moreover, since negative teacher attitudes towards girls often stunt their aspirations, positive re-orientation of the social environment of schools has been tried. For instance, Zambia is embarking on an in-service programme to develop positive teacher attitudes towards their work and the work of pupils.

It is now recognized that the decisions to continue investing in girls' education are taken daily at the household level. While some parents readily agree to enrol girls in school, they are likely to withdraw them as soon as schooling comes into conflict with other family needs such as caring for siblings and the sick, helping in income generation, and contributing to family wealth through provision of dowry by early marriage.

There are efforts in various countries to educate parents regarding the importance of keeping girls enroled. In Kenya, the National Council of Women of Kenya has since 1988 run a project on Children's Health and Traditional Practices. The project focuses on issues of population, health, education and good environment for all. The traditional practices of concern include childhood marriages, female circumcision, early pregnancy and nutritional taboos, all of which inhibit girls from advancing in all spheres of national development. Through seminars and workshops, and home visits, 43 district co-ordinators disseminate information to communities and households and educate women on supporting girls' adequate education.

In other countries such as Burkina Faso, Cameroon, Uganda, Tanzania, Zimbabwe and Malawi, seminars, workshops and village meetings are used to persuade parents to reflect



Schoolchildren in Ghana. Early entry to primary school improves results.

MARK EDWARDS

upon and understand the negative impact of their own actions on girls' education, including the financial and emotional burdens which dropping out can cause. Parents are also urged to develop community codes of conduct in order to tackle persistent detractors to female education such as early pregnancy, sexual harassment by teachers and other community males, forcible early marriage and lack of support for education in the home.

In some countries, women NGOs are beginning to question the existence of punitive policies which bar girls from re-entering primary school after dropping out due to pregnancy. Not only do many of these girls come from difficult and unstable home backgrounds, but it is also ironic that the very system that aspires to promote the welfare of the youth, should be the one that denies the girl an opportunity to improve herself and her child.

In order to capture the valuable and scarce investment already made in the pregnant girl's education and, at the same time, improve the long-term chances for financial independence, IPPF's affiliate in Tanzania, UMATI, and Action for Development and Safe Motherhood in Uganda have set up programmes to enable some girls to resume their studies after delivery. Unfortunately, governments are not willing to enrol these girls back into the main education system.

The overall situation, therefore, looks promising. Unfortunately, no country has developed a package of integrated interventions with the needed structural and functional linkages so as to bring about dramatic acceleration in female education. Pioneering approaches and interventions are fragmented and isolated. They are small-scale, catering to only a few of the many needy girls, and therefore unlikely to make a dramatic impact on a national scale. In addition, the interventions tend to be project-oriented, poorly financed, and not advocated or supported by an indigenous organic base which can ensure their sustenance and final merger with the mainstream of education.

So, a great deal of innovation is still needed to bridge the gap between the schooling of boys and girls. However, accelerated female participation will only be achieved if local people and their various organizations are mobilized to support the education of girls and if governments restructure the organization of education so that many more girls can enrol without a massive expansion of existing facilities.

Community action will be particularly crucial in convincing households to invest in girls, achieving sustained school attendance, providing adequate time and other resources for girls' private study in the home, ensuring sexual safety of girls in the school and in the community, combating nutritional deficiencies, and protecting girls against domestic violence.

As for the restructuring of education by governments, it has become clear that in debt-ridden countries, the correction of historical gender imbalances is unlikely to be considered a priority in allocating scarce resources. This puts into question the fiscal feasibility of expanding school places as a means of widening female enrolment. Therefore approaches need to be evolved which maximize the use of existing facilities and resources, and which over time, can help to underwrite accelerated access. This will entail at least two innovations: developing integrated curricula for both formal and informal education; and using non-traditional methods and media to deliver education.

With regard to curriculum, the three inter-sectoral problems of involving women in national development; stabilizing population growth; and the protection, conservation and rehabilitation of the natural environment have created unique challenges and problems whose solution lies beyond the curriculum and resources of any one discipline and educational institution. It calls for the collation and integration of the most critical information and lessons on the three issues so as to design an integrated curriculum for both formal and non-formal education.

Distance education and other non-traditional system of education need to be put in place, along with wider curriculum options for girls and women and mechanisms for harmonizing and linking non-formal and formal education.

The 'dead end' effect prevalent in much of non-formal education which now makes it useless for further advancement and employment, should be completely removed ■

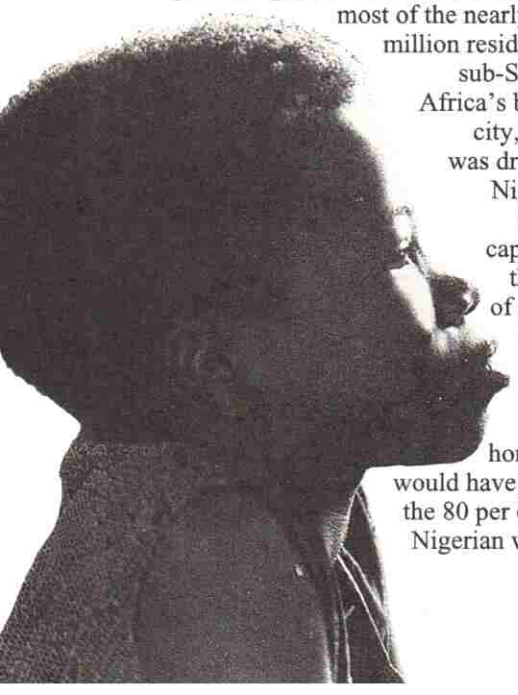
Nigeria's women look beyond literacy

by Elizabeth Obadina

Every evening after nine hours work, cleaner and washergirl Grace Mfon joins three other apprentices in one-roomed, "Julie's Fashion House" to learn tailoring. It is a two-year apprenticeship costing 21-year-old Grace 750 naira (US $38) a year payable in advance to Madam Julie. Grace saved for a year from her monthly salary of 400 naira (US $20) to buy her first year of training and the promise of a better job.

"When I finish I want to save to start my own shop. Then I will get married but I only want four children as times are very hard. I hope my shop will keep them," says Grace.

Grace lives in Lagos, Nigeria. She comes from a village 500 miles to the east in the impoverished, oil-producing state of Akwa Ibom. Like most of the nearly eight million residents of sub-Saharan Africa's biggest city, Grace was drawn to Nigeria's former capital by the lure of opportunity. If she had stayed home she would have joined the 80 per cent of Nigerian women who marry before the age of 20 and probably would have found herself in the position of nearly half Nigeria's rural women – farming for the husband.



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"I went to school but I couldn't finish. Anyway, this way is better," says Grace, referring to poor job prospects for educated Nigerians. In late 1992 almost 70 per cent of Nigeria's unemployed were under 25, most of them school leavers. Nigerian employers, including the civil service and armed forces, have been retrenching staff throughout six years of economic "restructuring" under an International Monetary Fund approved plan. Vocational training has now become the "beautiful bride" of virtually every government agency and NGO concerned with the development of Nigeria's nearly 90 million people.

"If only Nigerians acquire skills as well as certificates they become not only employable but can be self-employed," says Engineer Samuel Adelodun whose National Open Apprenticeship Scheme (NOAS) subsidizes the training of 100,000 boys and girls every year.

For decades women have been enticed to literacy classes with the carrot of learning a "functional" skill at the same time. They produced a generation of self-employed seamstresses and caterers who so impressed planners that government has added to the private initiative and begun provision of Women's Vocational Training Centres in all 589 local government areas.

"We need to find out what happens to women who complete the course, but my personal impression is that most are successfully self-employed. Moreover, in the north husbands are getting very interested in their wives learning income generating skills," says Mallam Bala, assistant director for adult education in the federal education ministry.

The Nigerian Government and aid agencies have set up a plethora of community banks and small loans schemes to provide start-up funds for the self-employed. Women, however, aren't always aware of them. "I don't know anyone who can help me in the bank." says Gbemisola Adesanya who makes and sells traditional tie-dyed *adire* cloth in a local Lagos market.

Vocational training centres, and to a lesser extent schools, have revived many of the traditional craft and art forms of Nigeria and many women now operate co-operatives to market their products. However, women tend not to venture beyond the "female" vocations.

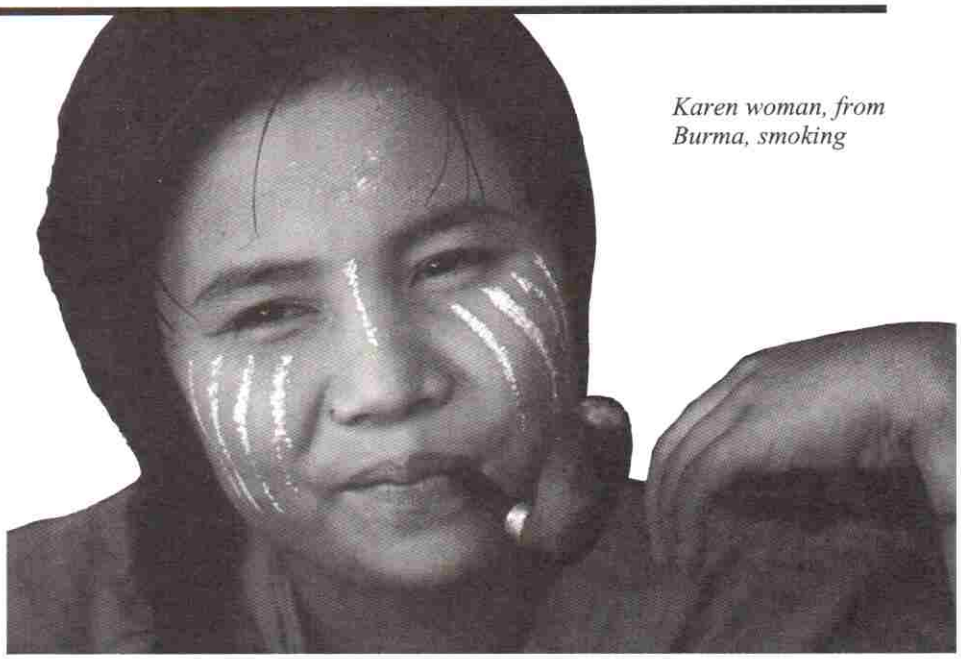
A recent advertisement by NOAS brought a flood of applications from girls for secretarial, hairdressing, fashion designing and computer courses.

"Half our trainees are girls. They rarely come back to us for resettlement funds as they find it easy to get married once they are trained. Nowadays men want a wife who can augment the income of the family and parents make the extra effort to hand over a girl who is not likely to be a useless appendage to her in-laws," says Engineer Adelodun.

Mr Adelodun says today parents are more likely to be banging on his doors than pressing university education upon their children. "There is a trend towards family enterprises and it doesn't matter to the parent whether they are setting up a girl or a boy. On a personal level our girls find that when they are contributing their husbands can't marginalize them. If she doesn't contribute financially, it leads to physical submission which could lead to any number of unwanted children. A skilled wife has better bargaining power," says Mr Adelodun.

Like Grace, most Nigerian girls link jobs with having babies.

"Once the girls are employed you tend to see her carrying a baby within the year. They feel secure. Vocational training is having a great impact nowadays amongst women. It is definitely delaying marriage age but whether it is affecting the number of children women have will take time to tell," says Dr Babatunde Sulaiman, Director of Nigeria's Planned Parenthood Federation who wants all such schemes to carry the family planning message. ■



Karen woman, from Burma, smoking

PETER CHARLESWORTH

Bridging the divide

Feminist criticism of population programmes is becoming more vocal – as was witnessed at the Earth Summit's Global Forum. Late last year the Population Council organized a Day of Dialogue in London to air these concerns. One of the key speakers was *Naila Kabeer*, who provided this view about how the divisions can be healed.

Interventions by the population establishment in the sphere of reproductive behaviour have long been dogged by controversy. This is not surprising since public attempts to shape behaviour in an area as deeply personal as the bearing and spacing of children carries a real risk of infringing a basic human right. However, the provision of reproductive technology can – and is – also viewed more positively as an enhancement of choice and has not, in itself, been the main source of controversy.

Rather the controversy has stemmed from the motives imputed by various groups in society to those who make and implement population policy and from the ways in which these motives have shaped the delivery of contraceptive methods. I say 'various groups' because the opposition to population policies has not been the sole monopoly of feminists, although theirs has been the most articulate and persistent voice in the debate. Some of the opposition within the US and Britain came because of eugenicist associations with the birth control movement in these countries.

In the Third World context, opposition has often taken a radical anti-imperialist stance. Some critics have seen population programmes as the product of fears among Northern countries of the politically destabilizing effects of unchecked population growth; others as an attempt by the north to deflect attention from the fact that if underdevelopment resulted from an imbalance between consumption and resources, overconsumption was a characteristic of the wealthy elites and nations rather than of the world's poor.

While many feminists working in the field of development agreed with anti-imperialist, anti-capitalist critique, they have also pointed out that Third World nations and socialist countries have proven equally capable of exercising coercion when it came to the reproductive behaviour of their citizens. They have also pointed out that it has been poorer women in Third World countries who have paid the costs of coercive population policies.

The issue of reproductive rights is in many ways a feminist issue par excellence. It crystallizes sharply the implications of patriarchal power for women's life choices. Women's control over their own bodies is critical to their sense of self-hood. To be denied control over our bodies is to be denied control over ourselves: our bodies *are* ourselves.

While the population establishment is not monolithic, there does appear to be a shared emphasis on the urgency of fertility reduction as a route to poverty alleviation and environmental sustainability. Feminists also differ among themselves. While most feminists are unlikely to subscribe to the causal interlinking of poverty and environmental degradation, on the one hand, and population growth on the other, many acknowledge that the decision to bear or not bear children can have profound social implications. As DAWN, a group of Third World feminists have pointed out, "Women know that childbearing is a social, not purely personal, phenomenon; nor do we deny that world population trends are likely to exert considerable pressure on resources and institutions by the end of this century". But, they go on to say, unless women's bodies cease to be treated as pawns in the struggles among states, religions, male heads of households and private corporations, and unless women's needs and interests are taken into account, family planning programmes are unlikely to succeed.

A useful framework for discussing some of the differences between official population interventions and the demands of women's health advocates is that suggested by Nancy Fraser's work on what she calls 'the politics of needs-interpretation'. The first element of this political process relates to the struggle to define a need or to establish or deny the legitimacy of an expressed need. There is widespread recognition in both official and alternative forums that there is considerable unmet need among women, particularly women in Third World countries, for the means to plan and control their fertility. But there are substantial differences in the way in which this need is interpreted.

Most feminists would interpret women's need for reproductive technology as one element of their broader rights to exercise control over their bodies and their lives. This does not always appear to have been the interpretation given by the population establishment, although the language of reproductive choice is frequently invoked as a secondary rationale for their programmes. Rather the official interpretation has been to conflate women's need for reproductive choice with the policy needs generated by longstanding official concerns with ▶

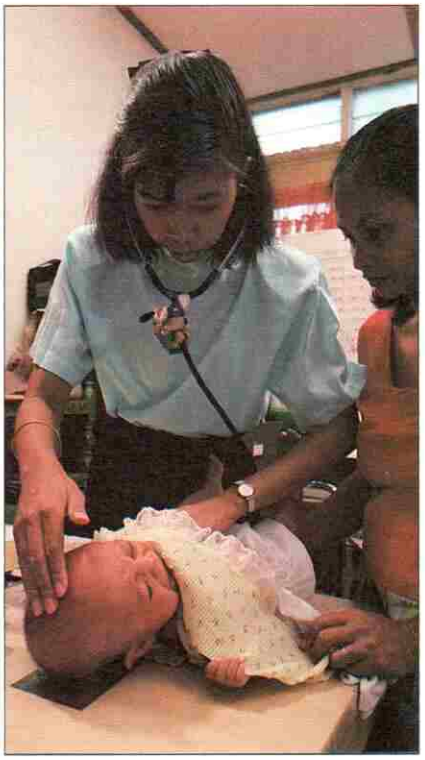
curbing fertility rates.

The second element in the needs-interpretation framework is their satisfaction: the interpretation given to needs helps to shape the provisions made to satisfy them. Given the resources that the population establishment is able to command, it is their interpretation that has shaped policy provision in this area. Family planning programmes in many developing countries are dominated by the official imperatives of population control rather than women's need for reproductive choice. This underlying ethos has frequently engendered a view of women as purely 'at-risk reproducers', resulting in staff who demand respect from the women they serve but do not return it and who neither provide information about the services they offer nor seek information about how women perceive these services.

The more overt forms of coercion practised in some population programmes have attracted well-deserved censure in most quarters. Less well documented are the more hidden forms of coercion – the incentives, the targets, the tying of acceptance with provision of other goods and services, which are routine elements in some family planning programmes.

Given the fairly widespread indifference to women's needs, it is not surprising that there have been massive discontinuation rates in family planning programmes. Yet there is little in the evaluation methodologies used to encourage the effective take-up of family planning methods. The monitoring and evaluation of family planning programmes are commonly in terms of quantitative indicators geared to targets reached, clients recruited, rates of acceptance and so on, which tell us little about the quality of interaction between providers and users.

If feminist interpretations of women's reproductive needs were adopted, the provision of reproductive technology would be geared to enhancing women's reproductive choices and health and supporting their reproductive rights. This would entail a recognition that as bearers and carers of children, women have a particular stake in the conceptualization, formulation and implementation of family planning programmes. The idea of the user's perspective in the planning of contraceptive provision would help to highlight that different groups of women have different needs at different stages of their lives so that reproductive choice requires a range of family planning methods. Critical to effective choice is information: about what is available, the risks in terms of women's health and of probabilities of contraceptive failure, the screening check-up and follow-up practices which should accompany each form of contraception. Evaluation methods which encourage sensitivity to women's needs would need to replace those which are merely acceptance-related. Finally, it would be important to broaden the focus of family planning programmes to encompass men. Women's reproductive rights should not be premised on the denial or neglect of men's reproductive responsibilities.



Health care should treat women as more than mothers and 'at risk' reproducers.

PETER CHARLESWORTH

However, it is important to move beyond family planning support to the broader context of women's health, to the question of women's access to general health care and the appropriateness of health care provision to women's health needs. Why is this essential to the question of reproductive rights? Because one of the key obstacles to women's exercising rights over their own bodies is their disempowered status in family and community decision-making processes. Development policies and practices which treat women as competent and valued social actors whose needs must inform the development agenda can help to create an enabling infrastructure for women's empowerment. A health service that focuses only on family planning or on women as mothers and as 'at-risk reproducers' is unlikely to contribute to their emergence as empowered social actors.

The final dimension in the struggle over needs interpretation in population policy is the struggle over resources. A sustainable family planning programme which is predicated on a respect for women's reproductive health, rights and choices cannot be done on the cheap. The argument that women's health advocates frequently encounter is that resources are scarce and there are many competing demands on the budgets of national and international agencies. However, scarcity of resources is not the main problem. National governments could release valuable resources if they chose to shift away from wasteful military expenditures and show-piece projects to a greater concern with human resource development. Donors could assist by untying tied loans and allowing poorer countries to shop around for their needs, by easing up on debt repayments and by subjecting their own spending in Third World countries to stricter principles of accountability. What is lacking for a feminist population policy is not economic resources, but political commitment. ■

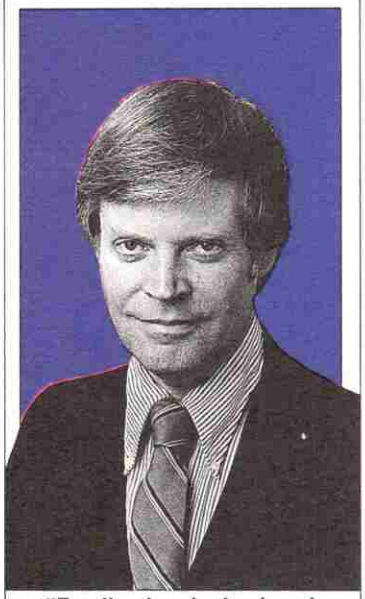
Naila Kabeer is a Fellow of the Institute of Development Studies, Brighton, UK.

Associates' News

Population Action International

The Population Crisis Committee, is taking a new name – Population Action International.

"Our new name reflects a changed world," says PAC president Dr Joseph Speidel.



"Family planning's place in the development equation is now acknowledged and, since we first started work, the number of governments funding family planning services has increased six-fold – to more than 125. Today, more than half the world's couples use a method of contraception.

"After more than 25 years of experience in family planning, the world community knows what works. The challenge now – as our new name implies – is to complete the task of putting into action what we have learned."

However, family planning is not the only field of action for the newly-renamed organization. "We must do more to ensure that human numbers are in balance with natural resources and also with human needs – to improve the quality of life for this and future generations," says Sharon Camp, senior vice president. "At the head of the list are critical women's needs – in health care, education and economic opportunity."

As the renamed Population Action International, the group will build on the recent expansion of its activities into research on the environment and sustainable development, while continuing its support of family planning and other reproductive health initiatives, and women's development.

New teaching kit

The Population Reference Bureau's newest teaching kit, *Making Connections: Linking Population and the Environment*, helps teachers introduce upper elementary students (aged 9-11) to population and environment issues. The materials show students the links between population growth, resource use, and the environment, and discuss the connections among people worldwide.

Developed by PRB and teachers in the United States, the kit introduces students to child 5-billion, whose environment will be greatly influenced by where he or she was born. Through the teaching kit, students explore the demographic and environmental issues that influence the quality of life of child 5-billion and all the world's people.

The multi-disciplinary topics are addressed in a series of diverse lessons. Students develop skills in geography, science, maths, social studies and language arts while learning about people, land, water and forest resources in urban and rural environments.

The colourful, 150-page kit includes 28 complete lessons, with reproducible readings and worksheets; graphs, maps and illustrations; 8 full-colour photographs for classroom use; and PRB's World Population Data Sheet.

■ *Contact Population Reference Bureau, Inc., 1875 Connecticut Ave., NW, Suite 520, Washington, DC 20009. Tel: 202-483-1100. Price $15.00 per copy plus postage.*

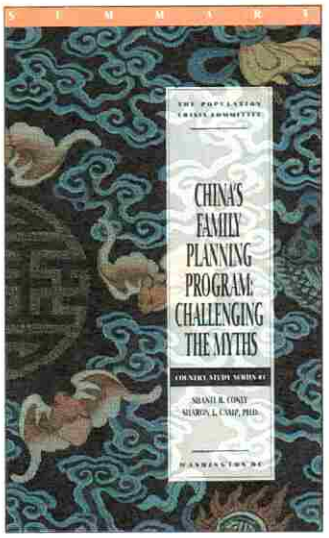
India and China

Serious shortcomings in the family planning efforts of China and India represent major obstacles to stabilizing population in the world's two most populous countries, according to recent reports released by Population Action International (formerly Population Crisis Committee). The two countries with a combined population of slightly more than two billion people are key to the future size of the world's population. The reports – *China's Family Planning Program: Challenging the Myths* and *India's Family Planning Challenge: From Rhetoric to Action* – are authored by Shanti Conly and Sharon Camp.

They say the pressure of population in both countries makes the task of overall development more difficult, and has been a major force in environmental degradation.

The authors note that family planning efforts in the two countries share many of the same problems. Both countries focus on programme targets, rather than on satisfied family planning users. Neither programme offers, in practice, the broad range of contraceptive methods and counselling necessary for men and women to make informed reproductive choices.

Significant differences between the programmes explain China's greater success, says the report. Local Chinese authorities have greater responsibility for both the direction and funding of family planning activities; in India, a stifling central bureaucracy has directed the programme according to a set pattern, without regard to the country's great geographic and cultural diversity. China has used mass media for public education more effectively than India, and political support and funding for family planning have consistently been higher in China than in India.



The reports recognize that the low status of women in both countries is an impediment to family planning success, despite efforts by the Chinese government to reduce discrimination against women. In both China and India there is still a significant gender gap in literacy and educational attainment, and son preference is a powerful force.

■ *Contact Population Action International, 1120 19th Street NW, Suite 550, Washington DC 20036. telephone: 202-659-1833, fax 202-293-1795. Free to developing countries in limited quantities, otherwise $5 for each report.*

Bringing family planning into homes

"We've created more awareness for family planning and PPFN in six months than in the past 28 years!" This enthusiastic statement from a State branch manager of the Planned Parenthood Federation of Nigeria (PPFN) describes the results of a project to broadcast Public Service Announcements (PSAs) about family planning throughout Nigeria.

PPFN implemented the project with technical assistance from The Johns Hopkins University Population Communication Services (JHU/PCS), part of the Nigeria Family Health Services (FHS) project. There are four PSAs focusing on family planning and one on age at marriage. All encourage viewers to seek more information from PPFN

and other clinics. The spots, for both television and radio, were produced in several languages including Pidgin, Igbo, Yoruba, Hausa, and English. Over 6,440 radio and 1,827 TV spots broadcast between May and October 1992 throughout the country. Many stations also broadcast some spots free as a public service to their audiences.

PPFN anticipates additional broadcasting of the spots during 1993. Not only has this project brought family planning into the homes of Nigerians, it has also served to increase awareness about PPFN and to boost morale of PPFN staff. Overall knowledge about family planning increased from 46 per cent to 83 per cent between 1990 and September 1992.

IUSSP Conference

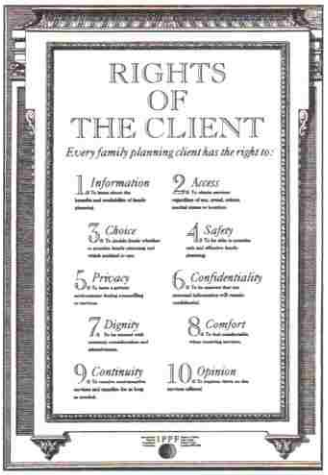
The International Union for the Scientific Study of Population (IUSSP), now a *People & the Planet* associate, will hold its 22nd General Conference in Montreal on August 24 to September 1, 1993. The Conference will include a special plenary session devoted to the International Conference on Population and Development, 1994.

■ *For further information contact Mr Bruno Remiche, Executive Secretary, IUSSP, Rue des Augustins, 34, B-4000 Liége, Belgium (Tel: 3241-22.40.80. Fax: 3241-22.38.47).*

'Family planning can succeed'

Some 450 participants from over 130 countries attended IPPF's 40th anniversary Family Planning Congress held in Delhi last October.

Everyone agreed that family planning was the success story of development: with contraceptive use having risen from 10 per cent to 51 per cent of couples in under 30 years. But there was concern



A new poster on the rights of the family planning client is available from IPPF

over the current lack of resources for contraceptive development, and especially the slow progress on male contraception.

There was consensus that programmes should be client-centred, based on principles of quality, reproductive health, contraceptive choice and voluntarism. And these kind of programmes need not be incompatible with meeting demographic targets, according to Steven Sinding of the Rockefeller Foundation.

He told the conference of his analysis of the unmet need for family planning from 12 recent Demographic and Health Surveys. In nine of them, satisfying women's expressed unmet need would increase contraceptive prevalence and reduce total fertility rates beyond government targets, by anything from 8 to 41 per cent. Worldwide, if programmes could even satisfy 85 per cent of unmet need, fertility could reach the UN low projection by 2000.

■ *A 36-page book on the Congress entitled* **Meeting Challenges, Promoting Choices** *is available from the IPPF Distribution Unit.*

Volunteers needed

Earthwatch is recruiting paying volunteers for hands-on assistance with diverse scientific research expeditions in 1993. Expeditions range from geology to marine mammalogy, and are 10 days to three weeks long. Volunteers are trained in the field, and no special skills are required. Ages: 16 or older. Volunteer contributions range from $500–$2,200 (to cover food, lodging, field equipment) and are tax deductible. Airfare is additional.

■ *Contact Andy Hudson at (800) 776-0188, ext 182, or write to Earthwatch, PO Box 403GP, Watertown, MA 02272, USA.*

Audubon Activist

Overpopulation and wasteful consumption of natural resources are having a devastating impact on the environment and quality of life around the globe, according to a series of articles in the latest edition of the *Audubon Activist.*

Articles also describe Audubon's population programme, which is in the forefront in preparing for the 1994 International Conference on Population and Development, in Cairo, Egypt.

The monthly Audubon Activist newsjournal, reaching 100,000 subscribers, covers environmental news and suggests ways Audubon members can take action. Members of the Audubon Activist Network pledge to write at least two letters and make at least two phone calls a year to their legislator on key environmental issues.

■ *Contact: Fred Baumgarten, Editor of Audubon Activist at 212-979-3092, Patricia Waak, Director of Audubon's Population Programme at 202-547-9009 or Audubon Public Affairs at 212-979-3027.*

Family planning guide

IPPF has published a practical guide to promote high-quality family planning, with an emphasis on the client's rights and needs. Entitled *Medical and Service Delivery Guidelines*, its eight chapters cover the rights of the client, contraceptive counselling, training, hormonal contraception, intrauterine devices, barriers, voluntary surgical contraception and periodic abstinence, with specific guidance to best practice.

The book is aimed at service providers, service managers and policy-makers both within and outside family planning associations (FPAs), and provides definitive standards which can be developed by FPAs and others.

■ *A loose-leaf binder version of the Guidelines is available in English, French and Spanish. The book, incorporating new material, is available in English only as yet, but French and Spanish editions will be ready by mid-1993. It costs £8/$16 and is available from IPPF Distribution Unit, Regent's College, Regent's Park, London NW1 4NS.*

AVSC publishes curriculum

The Association for Voluntary Surgical Contraception has published a training curriculum on minilaparotomy under local anaesthesia for female sterilization. The material was developed for use primarily in family planning service programmes in Sub-Saharan Africa, but it may be adapted for use in other settings and regions.

The minilaparotomy curriculum is designed for doctors learning to perform the surgery and for nurses who assist them. The material uses a skills-based approach to training. Topics are presented in a modular format so that trainers may easily adapt the curriculum to local needs. A trainers' guide, participants' handbooks, and transparencies are included.

AVSC will distribute the curriculum to family planning service agencies in the developing world that conduct training in the subject.

■ *For more information, contact Pamela B. Harper, Director of Communications, Association for Voluntary Surgical Contraception, 79 Madison Avenue, New York, NY 10016, telephone 212-561-8043, fax 212-779-9439, telex 425604 (AVS UI).*

Norman Myers is first British scientist to receive the Volvo Environment Prize.

Population post-Rio

At the Rio Earth Summit last June, population hardly made it onto the agenda – and as soon as it did, it was promptly knocked off again by a combination of the Vatican and its allies. Nor was there much enthusiasm from many if not most of the nations assembled at the conference, despite the powerful evidence that rapid population growth is harmful to both the environment and development causes. True, a host of the Earth's problems stem as much from over-consumption in the North as from over-population in the South. But that's a story for another day (and it has already been treated in this column). Population remains a front-rank issue, whether we care to recognize it or not. Yet it received only sporadic attention at Rio. Why?

A principal reason, so it was asserted, was that the United Nations is going to mount another mega-conference in 1994, this one directly geared to Population and Development. But by 1994 we shall have almost another 200 million people on board Planet Earth, almost the equivalent of an extra Britain, Germany and France. By then, too, there will surely be all the greater evidence that we cannot support – feed, house, educate, employ – our present numbers. The amount of urgency displayed at Rio suggests that the participants effectively felt we had a spare planet parked out there in space to which we could move if ever we found we had over-loaded things here on Earth.

Even more serious from the urgency standpoint is that the two years delay until 1994 will allow the phenomenon of demographic momentum to become still more momentous. This factor amounts to the tendency for population growth to reinforce itself (via the famous feedbacks at work) as long as growth is not reduced with all due despatch. The more potential parents are born in the immediate future, the longer it will be, *even with* reduced fertility in the longer-run future, for population growth to be slowed. In fact, the population explosion will thereby become eventually more explosive – and let's remember that the most explosive phase of all still lies ahead with population numbers projected to more than double.

The point is a trifle technical in principle. So let's consider a specific example to demonstrate the point in practice. In 1990, Pakistan had 115 million people, with an average family size of 6.6 children and an annual population growth rate of 3.1 per cent. If Pakistan had moved ahead in 1990 with a family-planning effort of sufficient vigour and timeliness to achieve the two-child family by 2010, its ultimate population size around the end of next century would be projected to reach 334 million. (Immense effort as this would be, it is by no means impossible; Thailand has done it, and several other nations have come close.) But if Pakistan were to delay by just 30 years in attaining the two-child family, then the factor of demographic momentum would cause the ultimate population size to soar to 556 million. This would be a whopping 222 million more due to the 40-year delay – or almost twice as many as Pakistan's population in 1990.

Hence time is of the super-essence. Did considerations such as these figure in the thinking of the Rio delegates?

Curiously enough, the participants at Rio, mainly men, who procrastinated on population received strong support from a coterie of extreme feminists. They protested that family planning should be largely if not exclusively a concern of women; they loudly resisted the idea that men should have much say at all on the grounds they would exploit the opportunity to manipulate women: more "male oppression". This struck some observers as a strange stance since experience shows that men need to be more involved, not less, in family planning. Thailand found that when it directed its birth-control campaign at women, there was scant success in bringing down the birth rate. But when it redirected its publicity efforts toward men, the rate plunged. The women already had the message, the men did not.

The support women need is of different sort, and they can use all they can get. It lies with general upgrading of their place in society – more education, more employment, more social status all round. According to a recent World Bank analysis, each additional year that girls spend in school leads to a 10-20 per cent rise in wages. And as Lawrence Summers argues elsewhere in this issue, the education of girls often supplies a higher return than any other investment available to developing nations.

To educate all girls as much as boys in low-income nations would cost $2.4 billion a year. That sounds a lot. But it is less than one quarter of one per cent of those nations' collective GDP, and less than one per cent of their annual investments in new capital goods (and little more than 4 per cent of all foreign aid budgets). It would give a solid boost to their economies, plus a super-solid boost to their family-planning campaigns. As in so many instances in the development field, we are surely faced with insurmountable opportunities.

Why, then, did the Rio participants overlook the arithmetic? Was it the political calculus that population is still a too touchy topic? Will the compelling case continue to be remarkable through its absence from development agendas for another two years until delegates assemble for the UN Conference on Population and Development – by which time the challenge will have become all the more challenging, and with less prospect of success? And will the women's cause overall continue to be a sideline item? ■

BOOKS

Challenge of the decade

Women and Literacy
Marcela Ballara
Women and World Development Series, Zed Books, London, 1992. £9.95/$15.45 (paperback); £29.95/$49.95 (hardback)

Waiting in early January this year for my adult children to emerge from customs on their return from West Africa, I was irritated and upset by a father's repeated admonitions of his toddler: "You can't go over there – over the barrier." Over and over again, the child whined to be allowed to go. Finally, his father said, "See that sign! It says NO ENTRY. Understand? You can't go over." To my amazement, the toddler became quiet. Already, before language, before reading, before literacy and before formal education, this developing two-year old was learning that signs "said" things. Reading was necessary, grown-ups thought what these things said was important. They helped you cope.

Yet, the inability to read, write and calculate, together with functional illiteracy (or insufficient skills to enable the individual to cope and function adequately in society despite having acquired basic literacy and numeracy) is widespread. Ninety-five per cent of the world's illiterate people live in the South and women account for a far higher percentage of these than men.

There is now widespread agreement that women's education is the key to development. "Women's literacy", writes Maria Luisa Jauregui de Gainza of UNESCO in the preface to this short (84pp) and rather expensive book, "is the challenge of the decade." Without the participation of women, development is impossible and women cannot participate in development without education. Beyond such statements lies the political implication that equality for women is a necessary aspect of development programmes.

The author, Marcela Ballara, in line with the overall objectives of the Joint UN/NGO Group on Women and Development out of which this series stems, sets out to present practical programmes and propose solutions.

Despite an overly long list of objectives, the book accomplishes much, making the major definitions early and explaining the need for change succinctly. Devastating tables and graphs show the extent of the world problem and the disgraceful inequality between women and men remaining in the distribution of illiteracy, with the major gender gap being located in Southern Asia, Sub-Saharan Africa and the Arab States.

The author points to the links between illiteracy and poverty and particularly to the powerful barrier of women's special lack of time. Although the correlation is not unambiguous, there is evidence that educated women choose smaller families and that literacy is a necessary if not sufficient precursor to falling fertility, morbidity and mortality rates.

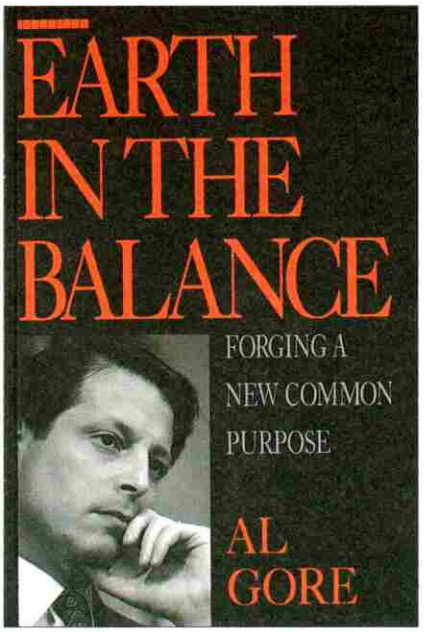
In the chapter dealing with the international response, including the effects of International Literacy Year in 1990 and the role of NGOs, the author stresses the immensity of the task to sustain educational programmes and improve literacy when, in the 37 poorest countries, the 1980s were witness to a 25 per cent of GNP decrease in public expenditure on education. This resulted in a fall in the numbers of children between six and 11 enrolled in primary school of whom only one-third were girls.

The series lives up to its promise with several chapters giving practical guides, including specimen materials and outline proposals that show the goals set and the steps for achieving them. The first appendix provides a guide to literacy education for women using discussion questions for each chapter, the second is a list of organizations. The bibliography and index are also useful.

Perhaps the most controversial aspect of this book's approach is its emphasis on the need first to focus on meeting women's own specific, practical requirements for income generation, to be able to fill in forms, understand contracts as well as sign them, send telegrams and read recipes and agricultural instructions, before focusing on their emancipation, empowerment and improved status. Women, the author argues, want immediate outcomes that they can experience first hand; their strategic needs involve concomitant, longer term goals. On the other hand, every other sentence serves to demonstrate both the empowering role of literacy and its role as the essential underpinning of sustainable development and an environment that is not degraded.

Annette Lawson

Dr Annette Lawson is a sociologist working as an independent feminist scholar and equal opportunities researcher and consultant. She is currently producing a detailed bibliography of gender-aware publications for IPPF.



Earth in the Balance: Forging a New Common Purpose
Al Gore
Earthscan, London, 1992, £14.95 (paperback). Houghton Mifflin, New York, 1992

This is a remarkable book, the more so because its author is a seasoned politician who has become Vice-President of the United States.

Mr Gore describes in thoughtful, scholarly terms how human civilization is bringing about an environmental holocaust without precedent. He analyses, from historical, scientific and religious perspectives, why the human race has set itself apart from nature and why, therefore, people are so unwilling to see and reverse the damage they are doing to the planet.

Although pessimistic, Mr Gore offers a solution. He proposes a Global Marshall Plan, with the United States in the lead, which would have five strategic goals, of which the first would be the stabilization of world population. "No goal is more crucial to healing the global environment than stabilizing human population". Mr Gore discusses the failure of past population programmes and urges emphasis on literacy, education, lowering infant mortality and providing a wide range of contraceptive choice.

Other components of the Global Marshall Plan must be the development and sharing of appropriate technologies – for which he proposes a Strategic Environment Initiative, a new global economics which will change the definition of GNP to include environmental costs and benefits, a new generation of treaties and agreements aimed at protecting the environment, and, finally, a new global environmental consensus. The Earth Summit in Rio last June has laid the groundwork.

Frances Dennis ■

RECYCLED PAPER